

Comparing linguistic metaphors in L1 and L2 English

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Abstract

The primary aim of this dissertation is to investigate differences in the production of linguistic metaphors in argumentative texts written in English by two groups of novice writers: advanced Norwegian learners of English and British A-level students. The study is corpus-based, with the primary material consisting of approximately 40,000 words, half from the Norwegian component of the International Corpus of Learner English (NICLE) and half from the Louvain Corpus of Native English Essays (LOCNESS). A secondary aim, a consequence of the first, is to test and evaluate the recently developed Metaphor Identification Procedure (MIP) as a tool for determining whether a word is metaphorically used.

The theoretical underpinnings for this investigation are found in the Conceptual Metaphor Theory, which maintains that metaphor pervades our thought and speech. Linguistic metaphors – the focus of this study – reflect the underlying conceptual metaphors which structure thought. Using MIP, 17.8% of the words in NICLE were identified as metaphorically used, as opposed to 16.8% of the words in LOCNESS. The metaphors were then categorized according to their degree of conventionality: *dead & conventional* (i.e. *entrenched*), and *novel*. Further, the novel metaphorical lexical words and the novel metaphorical prepositions were explored to uncover their possible motivation.

In general, the texts mirror each other in important ways. Although most of the language is non-metaphorical, metaphor is ubiquitous in both sets of essays. Moreover, the metaphorical language in both corpora is highly entrenched, with approximately 95% of the NICLE metaphors and 97% of the LOCNESS metaphors being dead or conventional. These differences are statistically significant, however, which means that Norwegians produce more metaphors overall than do their younger British contemporaries. This appears to result from their relatively greater production of novel metaphors. The primary contributory factor to the higher number of novel metaphors in the Norwegian L2 English is a relative overuse of novel metaphorical prepositions rather than any other word class. Closer investigation of the novel metaphorical prepositions indicates that both conceptual transfer (frequently related to differing metaphorical extensions from a basic meaning) as well as linguistic transfer (i.e. morphological and phonological similarity) often play a role in the choice of a deviant preposition. Exploration of the lexical novel metaphors shows that the majority in both corpora are non-deliberate, in the sense of either being errors (often the result of L1

transfer in the case the Norwegian texts) or being metaphors which could best be described as non-conventionalized due to their lack of codification in standard dictionaries of English.

MIP is found to be an effective means to identify linguistic metaphors, even by an individual researcher working without the benefit of peer consultation. It has the decided advantages of providing consistency and transparency to the identification process. Deviant language which novice writers in particular are liable to produce, while adding extra complexities, produces no insurmountable obstacle to the application of the procedure. Not only is MIP a time-consuming process, however, it is also a relatively complicated procedure to follow precisely. Questions are therefore raised concerning the practicality of using MIP alone to identify metaphors, and also about the extent of cross-investigation comparability which MIP affords.

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I would like to think that I could've pulled off this dissertation all on my own. It certainly felt like that at times! But when I think back over the past four years, then it becomes increasingly evident that I have been encouraged and supported by a huge flock of people, all of whom have contributed in their own ways to my work.

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Abbreviations

	Explanation	Page
ALEV	A-level (identifying lines from LOCNESS)	55
BCongr	Basic Congruence (about prepositions)	234
BNC	British National Corpus	71
CECL	Centre for English Corpus Linguistics	51
CEFR	Common European Framework of Reference: Learning, Teaching, Assessment	51
CIA	Contrastive Interlanguage Analysis	56
CLAWS	Constituent Likelihood Automatic Word-tagging System	91
CLC	Computer Learner Corpora	49
DCongr	Divergent Congruence (about prepositions)	240
CMT	Conceptual Metaphor Theory	13
df	Degree of freedom	48
DFMA	Discarded for metaphorical analysis (MIP coding)	140
EFL	English as a Foreign Language	40
ESL	English as a Second Language	40
ICLE	International Corpus of Learner English	50
IL	Interlanguage	56
KWIC	Key Word in Context	73
L1	First language (native language)	34
L2	Second language	34
lit	Literal (for word-by-word translations)	7
LBK	Leksikografisk bokmålskorpus (The Corpus for Bokmål Lexicography)	74
LM	Longman Dictionary of Contemporary English	112
LOCNESS	The Louvain Corpus of Native English Essays	52
MD	Biber's multi-dimensional approach	136
MED	Macmillan English Dictionary for Advanced Learners, Second Edition	112
MIP	Metaphor Identification Procedure	79
MIPVU	Metaphor Identification Procedure Vrije Universiteit (see <i>VU</i> below)	83
MPA	Metaphor Pattern Analysis (Stefanowitsch)	59
MRW	Metaphorically related word	86
NCEP	Non-congruence, English preposition – Norwegian Ø (about prepositions)	231
NCNP	Non-congruence, Norwegian preposition – English Ø (about prepositions)	231
NICLE	Norwegian component of the International Corpus of Learner English	51
NL	Native language	56
NNS	Non-native speaker	43
NO	Norwegian (identifying lines from NICLE)	55
Non-MRW	Non-metaphorically related word	86
NS	Native speaker	43
OALD 7	Oxford Advanced Learners' Dictionary 7	119
OED	Oxford English Dictionary	113
p	Probability of error (<i>p</i> -value)	48
POS	Part of speech	46

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SLA	Second Language Acquisition			50
V-term	Vehicle term (a term from Goatly 1997)			135
VU	VU University Amsterdam: Vrije Universiteit Amsterdam (Free University)			6
WIDLII	When in doubt, leave it in (MIP coding)			87
Ø	the zero preposition			222
ØCongr	Ø Congruence (about prepositions)			257
χ^2	Chi-square			47

Note: Abbreviations associated with the CLAWS C5 POS tagging system (e.g. AV0, AVP, NN1, PRP, etc.) are listed in Table 34 in the appendix.

1 Aims and focus

1.1 Aim

The primary aim of this project is to investigate the use of metaphor in learner-produced written English in a comparative perspective. The method of Contrastive Interlanguage Analysis is used to compare the extent and characteristics of the metaphorical expressions written by advanced Norwegian speakers of English with those produced by British A-level students who are native speakers of English. Argumentative essays collected in two computerized corpora, one corpus consisting of essays written in English by Norwegian students (L2 writers) and the other corpus composed of essays written by native speakers of British English (L1 writers), provide the primary source material. This dissertation seeks to determine whether there are significant differences in the written metaphorical production of the two groups, and seeks to answer this question through an investigation of how students have encoded metaphors in English in actual instances of learner writing.

A secondary aim is the trial and evaluation of the newly-developed Metaphor Identification Procedure (MIP) as a tool for identifying linguistic metaphors in the written production of novice writers. MIP is a process consisting of four steps which allows one to identify whether a particular linguistic form employed in a given context is metaphorically used. An important motivation for its development was the need for a valid, reliable, and replicable procedure for metaphor identification. In brief, MIP is said to be valid because it springs out of previous research from many fields such as applied linguistics, cognitive linguistics, and psycholinguistics, reliable because it divides the analytical process into explicit and discrete moments of decision thereby allowing for a high degree of consistency in evaluation, and replicable because the analyst is then able to retrace and explain the reasoning leading to any one decision about metaphoricity. Because of its need for a reliable system of metaphor identification, this study provided an ideal means to independently trial MIP to offer an informed critique of the method and evaluate its potential for metaphor identification by a single researcher (as opposed to a group of researchers), in English texts written by novice L1 and L2 writers.

1.2 Background

The starting point for this investigation is the common observation among teachers of a foreign language that the written language of even fairly advanced learners is often clearly identifiable as non-native. Such “foreign-soundingness” is not necessarily attributable to

problems related to grammatical or communicative proficiency, but to some almost indefinable quality that is absent from the writing of speakers of native or near-native proficiency. The easy way out, unsatisfactory though it might seem, is to say that “it just doesn’t sound right” (Danesi 2003, Philip 2006a). This study was begun to investigate whether metaphor could shed any light on this conundrum.

Although there exists a wealth of research about metaphor in general, there have been relatively few studies dealing with metaphor production by foreign learners. Most of the existing research deals with children’s comprehension and/or production of metaphors in their own language (see e.g. Levorato et al. 2004, McCarthy 1994, Vosniadou 1987, Waggoner et al. 1985, Winner 1988). Moreover, many of the more recent studies concerning metaphor and the language learner focus on the receptive end of language learning. Such research indicates that increased awareness of metaphor, for example, benefits the acquisition of receptive vocabulary (see e.g. Boers et al. 2004, Deignan et al. 1997, Golden 2004, Holme 2004).

Whether awareness of underlying conceptual metaphors increases the productive vocabulary of the language learner is less clear. As Boers explains, “knowledge of the existing metaphoric themes does not entail mastery of its standard linguistic instantiations” (Boers 2004: 218). The correspondence between conceptual and linguistic metaphors varies among languages, ranging from cases displaying the same conceptual metaphor and similar linguistic expression to cases where expressions have different metaphorical meanings despite similar literal meanings (Deignan et al. 1997: 353-355). On the one hand, such variation may result in a mismatch as learners who are influenced by their first language may inadvertently utilize expressions in their written work which strike speakers of other languages as odd or even wrong. On the other hand, not all learner-produced innovative metaphors are necessarily mistakes. Awareness of conceptual metaphors may help the language learner in the deliberate production of creative metaphors in the target language (see e.g. Boers 2004, Yu Ren 2004: 33), analogous to the way in which the native speaker may intentionally deviate from standard metaphorical expressions to achieve a certain original effect, thereby producing “a slightly novel, unexpected variation on the familiar usage” (Pawley and Syder 1983: 208).

Some studies concentrate specifically on learner-produced anomalies in written texts by attempting to uncover the concrete reasons for such language production. Danesi concludes “student-based discourse texts seem to follow a native-language conceptual flow that is ‘clothed’...in target language grammar and vocabulary” (Danesi 1994: 454),

indicating that such infelicities are caused by a mismatch between the conceptual concepts fundamental to speakers of the L1 and L2 in question. By contrast, Philip claims that such anomalies are due to “inadequate knowledge of the word’s lexico-syntactic behaviour (phraseology) in the L2, rather than incomplete L2 conceptual knowledge” (Philip 2006a: 2). The present study contributes to the ever-growing research in this area through an exploration of the results from the systematic identification of all instances of linguistic metaphor in a comparable set of L1 and L2 learner-produced texts, comparing and contrasting frequency and degree of conventionality of observed metaphors, as well as investigating possible motivations for the production of the identified novel metaphors.

1.3 Data

This study is corpus-based. There are a number of perceived advantages to such an approach. First, corpus evidence forces one to confront “the messy reality of metaphor use,” rather than allowing the researcher to randomly choose some especially interesting metaphors for analysis (Gibbs 2006). This necessarily lends credibility to any postulated results, as one no longer has to blindly trust the researcher about whether a particular expression ever really occurs in actual discourse. Moreover, such bottom-up studies allow one not only to examine naturally-occurring language for evidence to support already existing linguistic theories, but may also reveal evidence for previously unsuspected or unexpected phenomena (Deignan 2005: 88). Furthermore, corpus-based research provides a convenient means to allow for empirical crosslinguistic investigation of linguistic metaphor (Stefanowitsch 2006a: 11-12).

The data explored here consists of approximately 40,000 words of novice English, half written by advanced Norwegian learners of English and half written by British A-level students whose first language is English. The texts which provide my material are available as part of the International Corpus of Learner English (ICLE) project, which culminated in the creation of a corpus of learner English distributed by L1 into sixteen national subcorpora of approximately 200,000 words each. The Norwegian material is collected in the Norwegian component of ICLE (NICLE), and consists of argumentative essays written by Norwegian students in their third or fourth year of university studies. The British material is collected in the Louvain Corpus of Native English Essays (LOCNESS), specifically designed as a reference corpus against which to compare ICLE.

1.4 Structure

This study is divided into three main parts. Part I comprises this introductory chapter, together with chapters 2 and 3. Chapter 2 introduces the theoretical underpinnings of my study. A brief survey of varying views on metaphor is first presented, after which the discussion narrows to the Conceptual Metaphor Theory (CMT) which provides the foundation for the present study. Various aspects of CMT are explored here, such as the crucial distinction between linguistic and conceptual metaphors and different proposals for a typology of metaphor. The discussion then deals with linguistic metaphor as it relates to the foreign language learner, examining issues such as metaphorical competence and native-like language.

Chapter 3 has the dual function of presenting the material used in my study as well as the general methodology. Because my study is corpus-based, this chapter starts with a brief introduction to corpora, corpus linguistics, and more specifically, Computer Learner Corpora. Moreover, the general methodologies of reflective equilibrium and Contrastive Interlanguage Analysis, both of which underlie the whole of my investigation, are also presented. The bulk of the chapter, however, is devoted to a description of the many practical details of my primary material and working methods. A description is first provided of the Norwegian component of the International Corpus of Learner English and the Louvain Corpus of Native English Essays, the two corpora providing the raw material for my data. Then details about metaphor identification, metaphor categorization, and methods for investigating the potential sources of learner language are discussed.

Part II consists of only Chapter 4. This chapter deals expressly with the Metaphor Identification Procedure (MIP), which was both instrumental to the methodology employed here and an object of study in and of itself. My interpretation of the procedure is presented here, along with details about my experiences working with this method, which was itself still under development as my work was in progress. This chapter necessarily draws heavily upon the few articles already published by the two overlapping groups responsible for the development of MIP. The first is known as the Pragglejaz Group, where Pragglejaz is an acronym composed from the first name initials of the ten international metaphor researchers who initially conceived of the idea for MIP. The second group consists of researchers from the VU University Amsterdam (Vrije Universiteit Amsterdam), one of whom also belongs to Pragglejaz, who have been responsible for the further development of the procedure. Due to the relatively complicated nature of the procedure, I first go into some detail in explaining and exemplifying MIP with material from NICLE and LOCNESS. Particular issues that

arise during the application of MIP – 1) in relative isolation without the benefit of the advice of a fellow group of researchers, and 2) to novice writing (both of native speakers and non-native speakers) – are explored. A critique of the procedure is also offered.

Part III comprises three chapters. Here, the linguistic metaphors identified in my material using MIP are presented and explored. Chapter 5 is primarily descriptive in nature, presenting comparative quantitative portraits of the data gathered through the application of MIP to NICLE and LOCNESS. This chapter offers an overview of the observed frequencies of metaphorically related words in terms of their potential interaction with various factors such as L1, word class, and degree of metaphorical conventionality. Chapters 6 and 7 concentrate on the novel metaphors in my data. In Chapter 6, the novel lexical metaphors and their potential motivations are presented, while the cases of novel metaphorical use of prepositions are discussed in Chapter 7. These last two chapters both begin with some theoretical discussion to establish the background and/or taxonomy utilized in the subsequent data analysis.

Finally, Chapter 8 presents a general summary and conclusions. Some implications of the results from this investigation are discussed and areas for future research are suggested.

1.5 Some practical considerations

Because this project focuses on the English of Norwegian L1 speakers, various Norwegian sources are referred to and quoted here. In most cases, such as with relevant sentences found in the corpus of Norwegian texts which was consulted, the original Norwegian is first presented along with its corpus tag identifying text source, and then followed by an English translation. Unless this is explicitly marked as being found in the original, the translations are mine. Some translations are marked with *lit*, for *literal*, to indicate that the translation is rendered according to a strict word-by-word correspondence even though the result is unidiomatic; many of such literal translations are followed by a second, idiomatic translation marked *Eng* for (*idiomatic*) *English*. This is typically done to highlight a specific difference between Norwegian and English, such as the Norwegian combination of preposition and infinitive. Otherwise, translations are simply indicated by the word *translation*, and are meant to be as accurate as possible with respect to both the structure and meaning of the original Norwegian. In those few cases where the Norwegian is not presented here, I specifically add a note about my having translated the quotation so as not to give the impression that the original had been in English. The absence of either

Norwegian text or an explicit statement about translation indicates that the source was written in English.

Additionally, the fields of both learner language and corpus linguistics are rife with abbreviations to refer to various common concepts and tools. The advent of the Metaphor Identification Procedure adds another set of abbreviations meant to allow for conciseness in that area. Although I have been reluctant to add to this alphabet soup, I have nevertheless done so at certain times to allow for a convenient means of referring to certain key concepts or terms. To aid the reader, an alphabetical list of all abbreviations is presented on page xv. Brief explanatory remarks are sometimes added. This list also includes a page reference for each abbreviation, which refers to the first and/or most helpful mention for its definition. Note that the terms *NICLE* and *LOCNESS* are frequently employed as shorthand for the approximately 40,000 words in my data, even though these same terms also are used for the two corpora as a whole. The distinction should, however, be clear from the relevant context.

2 Foundations

2.1 Introduction

This chapter lays the theoretical foundations and presents background for this investigation through a discussion of the main components integral to the present study: metaphor and metaphorical competence, the comparison of L1 and L2 English, and Norwegian L2 English in particular. First, any investigation which purports to examine metaphor requires a working definition of that phenomenon, supported by theory and previous research. As a consequence, much of this chapter is devoted to this topic. Section 2.2 first offers a brief introduction to the concept of metaphor as it is used throughout this study. This is followed in section 2.3 by an overview of some of the diverse views concerning metaphor proposed over the years. Due to the copious amount of material produced in the course of centuries, however, this section is intended as a means of coming to grips with a handful of the arguably most renowned theories, rather than as a complete catalog. Section 2.4 focuses in detail on the particular theoretical stance upon which this study is based, the Conceptual Metaphor Theory. In doing so, certain issues are discussed at some length to facilitate a clear understanding of the actual object of study here. For instance, important terminology, such as *conceptual metaphor* and *linguistic metaphor*, is defined. Other aspects discussed here include metaphor processing, typology of metaphor, and the distinctions between metaphor and simile and between metaphor and metonymy. The discussion then shifts somewhat in section 2.5 towards metaphorical competence and its importance in learner language. This is followed by a discussion in section 2.6 about general issues which necessarily lie at the heart of any comparative study of L1 and L2 language. Section 2.7 examines the status of the English language in Norway, in order to provide the reader with some context with which to situate the NICLE essays. Finally, section 2.8 summarizes the main points from this chapter and their relation to the study as whole.

2.2 What is metaphor?

Giovanni and I have such a good time teaching each other idioms in English and Italian. We were talking the other evening about the phrases one uses when trying to comfort someone who is in distress. I told him that in English we sometimes say, "I've been there." This was unclear to him at first – *I've been where?* But I explained that deep grief sometimes is almost like a specific location, a coordinate on a map of time. When you are standing in that forest of sorrow, you cannot imagine that you could ever find your way to a better place. But if someone can assure you that they themselves have stood in that place, and have now moved on, sometimes this will bring hope.

"So sadness is a place?" Giovanni asked.

“Sometimes people live there for years,” I said.
(Gilbert 2006: 71, italics and underlining in the original)

Although Gilbert never uses the actual word in her English lesson, what she explains to Giovanni here is the concept of metaphor à la Lakoff and Johnson’s (1980) Conceptual Metaphor Theory (CMT). They contend that metaphor pervades our everyday life, both in thought and language. Metaphor is not simply a device used for mere description, but something that actually facilitates a means of conceiving of one thing in terms of another, resulting from a mapping between two distinct semantic domains. Here, the abstract concept of grief is structured and mentally represented in our thoughts in terms of a concrete location. In language, such a conceptual mapping is expressed by a linguistic expression, in this case the single adverb *there*. As Lakoff and Johnson express it, “metaphors as linguistic expressions are possible precisely because there are metaphors in a person’s conceptual system” (Lakoff and Johnson 1980: 6). The words we use give us access to the metaphors which structure our thought. Hence, metaphors operate on both the linguistic and conceptual levels simultaneously.

Conceptual metaphors systematize the way we define our everyday realities. Such metaphors involve a relationship between two concepts belonging to two different domains of knowledge. More precisely, certain features of a *source* domain are mapped onto a *target* domain, thereby allowing the semantics of one domain to convey the semantics of another. Linguistic metaphors, which consist of the actual words and expressions which are uttered or written, provide evidence for the conceptual metaphors in our thought. They are specific to the language in question, explaining why Gilbert had to expand on the meaning of *I’ve been there* in such an elaborate way to convey its meaning to the Italian Giovanni. Metaphorical reasoning is universal, however, as are many conceptual metaphors, thereby allowing for Giovanni’s response:

In return, Giovanni told me that empathizing Italians say *L’ho provato sulla mia pelle*, which means “I have experienced that on my own skin.” Meaning, I have also been burned or scarred in this way, and I know exactly what you’re going through.

2.3 Various views of metaphor

The Conceptual Metaphor Theory is but one of many proposals about metaphor. The Romanticist Coleridge “used to say that everyone is born either a Platonist or an Aristotelian” (cited in Hawkes 1972: 34), a distinction which also holds true where metaphor is concerned. In other words, metaphor is viewed as intrinsic to language or alternatively, as merely an embellishment. Indeed, Aristotle is widely considered to have developed the first theories of metaphor, which he held to be “the application to one thing of

a name belonging to another; the transference may be from the genus to the species, from the species to the genus, or from one species to another, or it may be a matter of analogy” (Aristotle 1965: 61). According to this view, metaphor is employed primarily to achieve certain refreshing effects, whereas clarity is best achieved through the use of so-called ordinary language (Hawkes 1972: 6-9).

The Aristotelian tradition is manifested in the classical views of metaphor as either a form of substitution or one of comparison. By the former view, metaphor is simply a case of saying one thing but meaning another, a paraphrase of an equivalent literal alternative. The latter stance holds that metaphor involves comparison rather than simple substitution. Thus in *A is B*, *A* is not the same as *B* (i.e. substitution), but rather similar to *B* in certain respects (i.e. comparison). According to this view, metaphor is nothing more than a condensed simile; while the comparison is overtly flagged with *like* or *as* in simile, it is only implied in metaphor (Black 1981: 68-71, see also Cameron 2003: 13-15, Charteris-Black 2000: 151). This account, argues Mahon, is “quite close to the commonsensical understanding of metaphor” (Mahon 1999: 71). An underlying assumption of both views is that literal language is the default mode of expression and any metaphorical expression is used in place of a literal equivalent. The one exception may be when metaphor acts as a type of catachresis by filling a gap in the lexicon, but in “successful” cases, the metaphorical nature of the sense is said to disappear, such that the sense becomes transformed into a literal one (Black 1981: 69). Further assumptions associated with the Aristotelian tradition are that all definitions in the lexicon are literal and that everything can be understood literally, without recourse to metaphor (Lakoff 1993: 202-204). A typical summation of the Aristotelian view thus runs as follows: everyday language is literal and metaphor is a detachable poetic ornament, no more than “a frill, a deviant, decorative aspect of language” (Winner 1988: 15).

The Platonist tradition, by contrast, holds that metaphor is inseparable from language as a whole because discourse is “constructed like a living creature” and is thus an organic unit. Individual constituents are inseparable from and vital to the whole (Hawkes 1972: 34-36). Many alternatives to Aristotelian-inspired theories of metaphor have been proposed, most of which may be distinguished along the semantic/pragmatic divide. To elaborate, either metaphor belongs to that which is said and is the product of semantic interpretation or metaphor belongs to that which is otherwise communicated and is the product of pragmatic interpretation. Black, for instance, falls into the former category with his “interaction” view, where he proposes that metaphor is created through the interaction of associations between a

primary and secondary subject. In sum, we put known words together to express meanings we might not be able to articulate in any other way.¹

By contrast, Searle advocates the latter view with his indirect speech act proposal, maintaining that metaphor interpretation is arrived at indirectly via the literal meaning, prompted by an obvious discrepancy between speaker meaning and linguistic/sentence meaning (Searle 1993: 84). He maintains that if a “defective” utterance is taken literally, the inherent contradiction that arises causes the hearer to search for a speaker meaning (i.e. what was intended) which differs from the actual sentence meaning (i.e. what was actually said). An utterance which is false, completely irrelevant or trivially true will consequently prompt the recipient to search for non-literal interpretations, such as those involving metaphor, metonymy, or irony. For instance, John Donne’s statement *no man is an island* is so obviously true that its banality triggers such a search for an alternative, underlying meaning (Glucksberg and Keyser 1993: 402-403).

Another approach to metaphor from a pragmatic perspective is found in Relevance Theory, whose basic premise is that the only fixed expectation of hearers is the expectation of relevance; one generally assumes that the meaning of an expressed proposition corresponds to what the speaker actually intends to convey. Interpretation of metaphor is no different from the interpretation of anything else, namely meaning is broadened or loosened (or alternatively, narrowed) by means of extra-linguistic, pragmatic inferences. Broadening refers to a variety of “loose talk” whereby the relatively strict semantic sense of an item is extended to include items that ostensibly fall outside its lexical domain. A word can thus convey a more general sense than its encoded one through the formation of one of an infinite number of “ad hoc concepts,” which are constituents of the proposition expressed. There may therefore be a significant gap between linguistic meaning and a speaker’s implicature. Interpretation of metaphor lies along a cline with degrees of loosening characterized also by other phenomena such as approximation, hyperbole, and category extension.² Conventional metaphors require little processing because their implicatures are so clearly defined. Novel metaphors require more interpretive effort. “In general, the wider the range of potential implicatures and the greater the hearer’s responsibility for constructing them, the more creative the metaphor” (Sperber and Wilson 1991: 548).

¹ Ernie Lepore: Lecture on metaphor and relevance theory. Lecture at the University of Oslo, November 21, 2007.

²Lepore, see footnote 1.

Davidson, however, maintains that the semantic/pragmatic divide creates a false paradigm and that “metaphors mean what the words, in their most literal interpretation, mean, and nothing more” (Davidson 1991: 495). He denies that metaphor interpretation involves any special inferential cognitive process. When we use words literally, we can convey more than we say; the same holds true for metaphor. Metaphors have no special cognitive content, but simply make “us see one thing as another by making some literal statement that inspires or prompts the insight” (Davidson 1991: 505).

2.4 Conceptual Metaphor Theory (CMT)

The Conceptual Metaphor Theory holds that metaphor is not limited to the level of language alone, but is instead intrinsic to our conceptual system. As an example, consider the concept of time, a familiar concept to most people despite its complexity. Saint Augustine in *Confessions* remarks, “What, then, is time? I know well enough what it is, provided that nobody asks me; but if I am asked what it is and try to explain, I am baffled” (quoted in Landau 2001: 167). Dictionary definitions would likely not help someone who really had no conception of time because such insight is gained through experience of the effects of time during the course of living. Such a complex concept is thus more readily understood through appeal to conceptual metaphor; “most abstractions are in effect metaphorical abductions, or ‘informed best guesses’ as to what the abstract concept entails” (Danesi 2001: 139).

In the conceptual metaphor TIME IS MONEY, for instance, certain features of the source domain of “money” are mapped onto the target domain of “time.”³ Evidence for a conceptual mapping can be uncovered in patterns formed by the various resultant linguistic metaphors, e.g. *we spend time wisely*, *save time*, *run out of time*, etc. Source domains are typically concrete and target domains are abstract. Concrete domains, many of which are embodied, tend to be more salient, which explains why we (consciously or unconsciously) anchor our understanding of abstract notions with them. Abstract to abstract mappings and concrete to concrete mappings also exist, but are less common than concrete to abstract mappings (Deignan 2005). In short, conceptual metaphor may be defined as follows:

the (partial) mapping of two concepts belonging to two different knowledge domains onto each other. One concept (the target) is understood in terms of the other (the source).
(Feyaerts 2000: 60)

2.4.1 Conceptual and linguistic metaphors

According to CMT, metaphors pervade our everyday life, both in language and thought. They simultaneously operate on two levels, conceptual and linguistic. Accordingly, CMT

³ Note that by widespread convention, conceptual metaphors are indicated by capital letters.

typically distinguishes between two dimensions of metaphor, metaphor in thought (conceptual metaphor) and metaphor in language (linguistic metaphor). Conceptual metaphors constitute the underlying motivation for linguistic metaphors, or to put it another way, linguistic metaphors are the reflection in language of the conceptual metaphors which structure our thought. Linguistic metaphors consist of the actual words or phrases used, and in theory there are an endless number of such metaphors which appeal to one and the same conceptual metaphor. To take some examples from Lakoff and Johnson (1980: 4), the italicized terms are the linguistic metaphors used to express the ARGUMENT IS WAR conceptual metaphor in sentences 1 to 3:

1. Your claims are *indefensible*.
2. He *shot down* all of my arguments.
3. His criticisms were *right on target*.

Whereas many conceptual metaphors would appear to be universal, linguistic metaphors necessarily depend upon the language in question. Knowledge of conceptual metaphors, such as ARGUMENT IS WAR, “does not entail mastery of its standard linguistic instantiations” (Boers 2004: 218), something of consequence to language learners. Metaphorical expressions cannot be predicted from conceptual metaphors, so although a basic knowledge of conceptual metaphors in an L2 may help language learners in the interpretation of linguistic metaphors, they do not necessarily help in the production of standard L2 metaphorical expressions.

In discussing metaphor, Richards writes, “One of the oddest of the many odd things about the whole topic is that we have no agreed distinguishing terms for the two halves of a metaphor” (Richards 1965: 96). In this particular respect, metaphor studies have not greatly progressed and hence a brief overview of terminology is in order. Richards proposes the terms *tenor* and *vehicle* to describe the main components of metaphor, the former comprising “the underlying idea or principal subject which the vehicle or figure means” (Richards 1965: 97). Hence, in the ARGUMENT IS WAR conceptual metaphor, the tenor is “argument” while the vehicle is “war.” The difference between these two terms is called the *tension*, whereas the reason for linking the tenor and vehicle constitutes the *ground* (Ortony 1975: 45). Richards considers the ground to consist of the (real or perceived) elements shared between the tenor and vehicle, whereas Black for example maintains that “the semantic ‘interaction’ between topic and vehicle” (Danesi 1993: 492) generates the ground, culminating in a new perspective (Charteris-Black 2000: 151). Thus, according to Richard’s view, “argument” and “war” share certain common properties that help create a coherent

metaphor. By Black's view, certain characteristics of the two domains mix in such a way as to potentially create new insight into both areas.

Many later researchers have been careful to explicitly separate terminology employed for conceptual metaphor from that used for linguistic metaphor. Cameron, for instance, prefers the term *topic* to Richard's tenor, explaining that while the *vehicle* comprises the metaphorical focus (again, "war"), the topic refers to the overall content of discourse (here, "argument"). These terms, she realizes, are often used indiscriminately to refer to both conceptual and linguistic metaphors, something which can lead to some confusion. As a consequence, she reserves the terms *topic/vehicle* for linguistic metaphors and the terms *topic domain / vehicle domain* for reference to conceptual metaphors, the term *domain* referring to "the ideas or semantic field referred to by a lexical item" (Cameron 2003: 11). Littlemore and Low explain that the terms *topic/vehicle* are linguistic labels, as opposed to the conceptual labels *target/source*. They settle upon the more precise terms *source domain/target domain* to refer to conceptual metaphors, and *source domain terms/target domain terms* to refer to linguistic metaphors, "words or expressions that trigger a complex domain" (Littlemore and Low 2006a: 17-18).

Complicating the matter further, metaphorical concepts are not necessarily always realized by metaphorical language, as instances of allegory and simile show (Pragglejaz Group 2007: 24-25).⁴ Moreover, language users are often unaware of underlying conceptual metaphorical structures, and instead tend to be more attuned to factors such as the message or communicative function of linguistic metaphors. Indeed, even in cases where the linguistic metaphor might be readily apparent, the two entities involved in the underlying cross-domain mapping must often be inferred, so the actual conceptual mapping becomes a matter of interpretation and sometimes disagreement (Littlemore and Low 2006b: 270).

2.4.2 The meaning of *literal*

Metaphor relies primarily on a distinction between the literal sense and a figurative sense of the word or expression in question (Charteris-Black 2002: 107). Unfortunately, there is no consensus concerning what literal meaning actually is. Gibbs et al., for instance, report encountering at least five different meanings of *literal*: "conventional literality" (as opposed to poetic usage, exaggeration, etc.), "subject matter literality" (concerning the typical expressions for topics), "nonmetaphorical literality" (direct language involving no cross-domain mapping), "truth conditional literality" (objectively true or false), and "context-free

⁴ See section 4.2.2 for further discussion of this point.

literality.” From this, it follows that the average language user’s understanding of metaphor and other tropes naturally depends upon their understanding of what the concept of literalness entails (see Gibbs et al. 1993: 388-389, Steen 2007: 66)⁵. Glucksberg, for instance, discusses the commonly held view of literalness arising out of a folk theory of language, by which “words have primary meanings [...and] literal language is real, true, unambiguous, and relatively context independent” (Glucksberg 2001: 12). Upon first glance, this definition appears to satisfactorily differentiate the literal from the non-literal, which is, by contrast, subject to alternative interpretations. Weaknesses of such a folk theory, however, become readily apparent when confronted by real examples of language in use. By way of example, Hanks employs just such a “relatively context independent” instantiation to illustrate his proposed test for literalness, to wit:

One test for literalness is whether or not a term is typically used in subject position with an indefinite article, thus serving to introduce a topic into a discourse. ‘A bitch came into the room’ is more likely to be interpreted as referring to a dog than to an unpleasant woman. (Hanks 2003: 204)

I would argue, however, that such a presumed “typical” interpretation of the particular example presented here is counterintuitive (among other things, it assumes the ability to perceive the sex of dogs upon their entering a room) and thus his claim requires more substantiation than he offers. An additional objection to the validity of any such simple test may be drawn from Scriven’s contention that a literal sense constitutes a collection of “cluster concepts” of prototypical conditions, rather than any single concept. To illustrate, he questions when a purported lemon would no longer be considered a lemon (e.g. what if the item in question grew on a quince tree, but matched all other qualities of “lemonness”), and argues that “there is no single property of [e.g.] lemons that is individually necessary, if many others are present” (Scriven 1958: 105-106). He therefore contends that the borderline between literal and figurative is fuzzy, “a shifting boundary beyond which only misuse and metaphor lie” (Scriven 1958: 119). According to Beardsley, on this view a word is used non-literally when its context leads to the exclusion of so many of its prototypical criteria that a literal application becomes impossible, as is the case, for example, when a car is described as a lemon. Beardsley, however, leans towards a belief in the existence of necessary criteria defining literalness rather than only prototypical criteria (e.g. for lemons: concrete object, organic texture, small?), but reaches no definite conclusions (Beardsley 1962: 306-307).

⁵ Hanks (2003), for example, uses the term “literalness.” “Literality” is the term used by Gibbs et al. (1993) and Steen (2007).

Israel offers a more practical definition which ties the notion of *literal* to a lexeme's directly embodied, etymologically original sense (Israel 2005: 174). Steen in effect refines Israel's definition by employing the term *basic* to avoid any ambiguity evoked by the term *literal*, and specifies that the basic sense is the most concrete, human-oriented, precise (as opposed to vague), and often historically older sense. He stresses that these criteria denote tendencies only, so for instance, the oldest recorded sense of a word does not necessarily constitute its basic sense (Pragglejaz Group 2007: 3, Steen et al. in press-a, Steen et al. in press-b). Van der Meer also offers a tentative definition of the term *basic* which corresponds to Steen's criteria, in that etymology is not the prime consideration. He places more emphasis on the importance of synchronic relevance, meaning that "figurative meanings derive from – and are therefore related to – existing literal meanings through perceived similarity of their referents" (van der Meer 1997: 558-559). He contends that the basic sense of a word must still be in contemporary usage and consequently also evident in modern corpora. Moreover, he observes that collocates and colligates of a metaphorically used word are frequently determined by those of the word when used in its basic sense. By way of example, he suggests that collocations of *drown in* and *sink into* with the phrase *a quagmire of legal entanglements* are explicable only if one understands that the basic meaning of *quagmire* refers to soft, wet ground into which one may sink (van der Meer 1997: 557).

In addition, the basic sense is not necessarily the dominant sense of the word, "the one which is first to be thought of by the majority of the speakers of a language if presented with the word in isolation" (Zgusta 1971: 64). Although an intrinsically appealing concept, the dominant sense of a word is difficult to indisputably ascertain because it is a psycholinguistic concept based upon impressions of the "average" language user, whoever that may be. Not only may the accepted dominant sense of a word be difficult or impossible to prove, it may also change for a speaker over time, with age and accumulated experience. Moreover, not all words necessarily have dominant senses. Zgusta, for example, points out that both very rare words (e.g. *escutcheon*) and very frequent words (e.g. *work*) that have several direct senses, none of which clearly dominate (Zgusta 1971: 65-66).

A further criterion often associated with the concept of a dominant sense – and by extension, with the literal sense – is the frequency of a sense, determination of which is not as clear-cut as might first appear. To support this contention, one need look no further than to a comparison of the many contemporary dictionaries which employ frequency-based ordering of senses; discrepancies are readily uncovered. Dictionaries employing a frequency-based ordering of sense definitions should presumably agree with one another,

but this is not necessarily the case. The main problem is that there is no reliable system for counting the semantic occurrences of a word. Different corpora, editorial practices and preferences may all play a role here (Kipfer 2003: 183, van der Meer 1997: 559-560). Another point to consider in this regard is Sinclair's contention that "the commonest meanings of the commonest words are not the meanings supplied by introspection" (Sinclair 1991: 112), by which he means that for many words, what may be considered the most salient sense of a lexeme for most users turns out not to be its most frequently employed sense. He provides the example of *back*, whose adverbial sense (e.g. *come back*) is more frequent than its body part sense, something he holds to be contrary to most people's intuitions (also discussed in Deignan 2005: 118).

2.4.2.1 Bridge metaphors

Occasionally, however, the literal interpretation of a particular expression need not be entirely divorced from a metaphorical interpretation. Such is the case with a variety of linguistic metaphor which some have dubbed "bridge" metaphors due to the effect they have of encouraging a simultaneous dual interpretation. In the metaphor literature, however, such metaphors are only briefly touched upon, if at all. Kittay, in her discussion of the function "bridge concepts" in poetry and Platonic metaphors, presents the most thorough discussion of the trope thus far. She defines them as a rhetorical device by which a "common boundary" between two fields is exploited, allowing for a subtle means of highlighting or downplaying particular aspects of the subject at hand. As she writes, "The appropriate use of common boundaries of semantic fields similarly yields a concept that need never be explicitly stated, and whose existence need not be explicitly asserted, for it to be operative in our understanding of the metaphor" (Kittay 1987: 277). Other than this fairly brief mention, bridge metaphors tend to be remarked upon in connection with their use in puns, advertising, headlines, and the like, and are referred to in a number of different ways. Krishnamurthy and Nicholls, for example, discuss the ambiguity in the idiom *I come to bury Caesar not to praise him*, where the verb *bury* can be interpreted on two levels – a basic sense and a figurative sense. In their work, this ambiguity caused hesitation for informants who had been asked to semantically tag each word with the dictionary sense entry which most closely matched the contextual sense, as they found it difficult to settle upon a single tag only (Krishnamurthy and Nicholls 2000: 95). Goatly writes about an "interesting complication" which sometimes affects those cases which depend solely on the incongruence between the contents of what is expressed and the context in which it is

expressed. He illustrates this observation with examples from puns and advertising language which allow for – and undoubtedly promote – simultaneous access to the metaphorical and literal reading of a lexical item (Goatly 1997: 297-298). Low also mentions awareness and understanding of such “multiple layering” in his discussion of the various components which he views integral to an individual’s overall metaphorical competence (Low 1988: 133-134).

In sum, we have Kittay’s *bridge concepts*, Krishnamurthy and Nicholls’ *ambiguity*, Goatly’s *interesting complication*, and Low’s *multiple layering*. Bridge metaphors are thus terms which may be interpreted either metaphorically or literally, depending upon the contextual benchmark selected to determine metaphoricity. Prototypical bridge metaphors, as discussed in the literature, are deliberate in use. There is thus a high likelihood that they are produced with such a dual reference in mind and/or that they are interpreted as having been deliberately ambiguous. They rely on our ability to shift between different interpretations an utterance. Edward Kennedy, for instance, recalls one such instance when his brother Robert, who had been recently elected to the US Senate, was paying him a hospital visit after his 1964 plane crash:

Bobby had come to visit, and as the newsmen’s cameras flashed, one photographer leaned toward my brother and said, “Step back a little, you’re casting a shadow on Ted.” I quickly responded, “It’s going to be the same in Washington.” (Kennedy 2009: 229)

Here, Kennedy takes his starting point in the utterance of *shadow* in its literal sense, deftly twisting it in a way that forces a reinterpretation of that very same utterance to a metaphorical sense. Bridge metaphors found in my data are explored in section 5.3.2.1, in connection with an exploration of deliberate use of metaphor.⁶

2.4.3 Metaphor processing

The present study examines metaphorical production rather than comprehension or reception. A basic review of various views concerning metaphorical processing is nevertheless relevant to shed light on the background for the different approaches to metaphor categorization. Like much else about metaphor, how metaphors are actually interpreted and understood is a matter of some controversy. Searle’s view of indirect processing has fallen by the wayside in favor of various theories advocating direct access to metaphorical meaning, partially due to evidence showing that literal interpretations are not necessarily derived before metaphorical ones. For example, neuropsychological research

⁶ The phenomenon of deliberate metaphors, which relate to the dimension of metaphor in communication (as opposed to metaphor in thought and metaphor in language), is explained and explored in chapter 6.

about the processing of prepositions instantiating the TIME IS SPACE conceptual metaphor in brain-damaged subjects has shown that appeal to a spatial domain is not necessary to understand metaphorical extensions involving time. Although “studies suggest that spatial information can be very useful for thinking about time, and other studies point to an even more fundamental link between spatial and temporal perception” (Kemmerer 2005: 804), spatial and temporal meanings are processed individually. Abstract concepts, such as the understanding of temporal prepositions, can be impaired while concrete concepts, such as the understanding of spatial prepositions, are preserved. The opposite can also be true. Furthermore, many studies indicate that metaphorical and literal expressions are equally comprehensible and when given sufficient context, require equal processing times (Gibbs 1980, Onishi and Murphy 1993, Ortony 1978). In some cases, metaphorical meaning is even processed more quickly than literal meaning (Gibbs and Gonzales 1985).

Many researchers of metaphor processing take their starting point in CMT, emphasizing that metaphor involves a relationship between two knowledge domains and stressing the importance of context. Indeed, the determination of the literal and figurative interpretation of an utterance is often contingent upon its contextual properties rather than solely on its individual elements; for instance, whether the adjective *heavy* in *The book is heavy* refers to weight (literal) or meaning (metaphorical) depends upon the context of the utterance (Croft 1993: 363). Assuming that metaphor is involved, then the cross-domain relationship is understood through comparison, by which some features of the source domain of weight are judged similar to those of the target domain of content (Littlemore and Low 2006a: 46-49). Only a subset of the domains’ real or perceived characteristics, however, is involved in the comparison. By way of example, the mapping involved in the sentence *My lawyer is a shark* is conventionally understood through comparison of the apparent ruthlessness common to both sharks and lawyers, rather than for instance, through comparison of their skill in swimming (Glucksberg 2001: 109). In terms of metaphor categorization, Traugott posits that the characteristics involved in such cross-domain comparisons appear to be more constrained for conventional and dead metaphors than for novel metaphors (Traugott 1985: 36).⁷

Alternatively, the “conceptual integration theory” expands on CMT by postulating an additional third domain or *space*, consisting of a blend of associations which the recipient has for each of the metaphor’s two domains (Fauconnier and Turner 1998). This blended

⁷ Terms such as *dead*, *conventional*, and *novel* are discussed in section 2.4.4 of this chapter, as well as in section 3.5.

space is where the meaning of the metaphor emerges. The idea of emergent features captured in a blended domain helps explain “the fact that some features of the source or target domain may develop a new intensity or importance when they appear in a particular metaphorical expression” (Littlemore and Low 2006a: 48). Sometimes a metaphor is greater than the sum of its parts.

Some researchers, however, believe conceptual metaphors to be categorization rather than comparison statements. Glucksberg and Keyser’s “class-inclusion model,” for example, postulates the existence of a superordinate category which includes attributes shared by both elements of the metaphor. In their example *my job is a jail*, the basic word *jail* also refers to a superordinate category which includes both jobs and jails as members, jails being a more prototypical member than jobs. Glucksberg and Keyser maintain that it is because metaphors are class inclusion statements that they cannot be reversed, unless the ground changes. Jobs can be jails, but jails are not jobs (Glucksberg and Keyser 1993: 408-410, 415).⁸ Hence, Glucksberg and Keyser reject the cognitive linguist’s view that conceptual metaphors are in people’s minds and that metaphor involves a cross-domain conceptual mapping, in favor of the view that metaphors are understood through a process of ad-hoc categorization (see Steen 2007: 52-53).

Gentle and Bowdle’s “career of metaphor theory,” by contrast, enjoys the best of both worlds by maintaining that metaphor processing may involve either comparison or categorization. In effect, they merge CMT and the class-inclusion model into a single theory. More specifically, they claim that interpretation of metaphor involves a cline from comparison to categorization. Novel metaphors trigger a search for an appropriate comparison between source and target concepts, whereas more conventional metaphors known to the recipient involve categorization or sense retrieval rather than sense creation (Gentner and Bowdle 2001: 231). According to this view, therefore, either mapping or property attribution is involved in the interpretation of metaphor, depending on degree of conventionality. Adherence to this theory offers a key to why language users are typically unaware of the degree of metaphoricity of the conventional linguistic metaphors which abound in everyday language, namely that no cross-domain semantic mapping is involved. Only innovative metaphors require this type of cognitive processing. As Steen comments, a

⁸ This unidirectionality of metaphorical mapping is an oft-noted feature. Winner adds that although reversal to $B=A$ usually makes no sense, it occasionally creates new meaning. This is apparent when one compares the insult *my surgeon is a butcher* with the compliment *my butcher is a surgeon* (Winner 1988: 55).

paradox of metaphor is that most metaphorical language is not processed metaphorically (Steen 2008c).

2.4.4 Typology of metaphor

Typology of metaphor – typically as *alive*, *dead*, or somewhere in between – is another area that is marked by varied terminology, inconsistent or absent definitions, and strong opinion. At one extreme are those metaphors which are considered “alive” in the sense that there is no pre-existing conventionalized link between the metaphorical and literal senses. Interpretation of the topic therefore requires access to the vehicle involved. They are discussed in the literature under many monikers: *innovative*, *active*, *fresh*, *live*, *novel*, *literary*, *newly-invented*, *poetic*, and/or *creative* metaphors. At the opposite extreme are *dead* metaphors.

According to one view, dead metaphors are those metaphors which are no longer alive, a description fitting any metaphor whose sense has become conventionalized and thus – so the argument goes – is no longer perceived of as being metaphorical. In essence, such metaphors have become literal. This is the basic premise of Black, for example, who maintains that the opposition between dead and alive metaphors is trivial for all intents and purposes: “This [distinction] is no more helpful than, say, treating a corpse as a special case of a person: A so-called dead metaphor is not a metaphor at all” (Black 1993: 25).

Müller (2008) posits that the issue of whether dead and/or conventional metaphors should still be considered metaphorical provides the litmus test dividing what can be characterized as linguistic theories of metaphor from cognitive theories of metaphor. According to CMT, *conventional* metaphors are those “that are most alive and most deeply entrenched, efficient, and powerful,” established in our conceptual systems and helping us to make sense of the world (Lakoff and Turner 1989: 129). This theory places conventional metaphors at the heart of metaphor studies because they provide evidence for the underlying conceptual metaphors which structure thought. By contrast, the so-called “Dead Metaphor Theory” articulated by Black, while it does recognize the purported link between cognition and language, nevertheless relegates any metaphor which has become collectively institutionalized (or conventionalized) to the realms of banality (see also Leech 1969: 90, 92). Such metaphors are considered dead because they lack the key ingredient of “vitality,” a quality which is implicitly linked to consciousness of metaphoricity and thus metaphorical processing (Müller 2008: 179).

Lakoff and Turner contend that there is a crucial distinction between conventional and dead metaphors which is disregarded in accounts such as those of Black. Specifically,

they claim that Dead Metaphor Theory seems credible because there are expressions which have lost their metaphoricity, namely, those metaphors whose conceptual and/or linguistic sources are no longer accessible to contemporary language users. In some cases such as the one-shot metaphor *pedigree*, both the conceptual and linguistic metaphorical connotations have vanished from everything but historical records.⁹ In others such as *comprehend*, the original literal sense of the word has become archaic, even though the underlying conceptual metaphor of UNDERSTANDING IS GRASPING remains active.¹⁰ Here, what was once a metaphorical extension is left as the lexeme's only conventional sense in the present-day language (Lakoff 1987, Lakoff and Turner 1989: 129).

The term *historical* is used by many to refer to linguistic metaphors like *comprehend*. As Müller explains, historical metaphors are opaque because judgement of metaphoricity in such cases depends upon the etymological knowledge of the language users. Steen exemplifies this point with examples such as *fervent* and *ardent*. Etymologists would consider the emotional senses of these terms to be a metaphorical extension from their original senses, which relate to temperature.¹¹ Others for whom the original senses are obsolete would view these words as monosemous, relating to emotions only (Steen 2005: 6-7, 312-313). *Conventional* metaphors in Lakoff and Turner's sense are another creature entirely. They contrast with dead metaphors in their degree of transparency, that is, it remains possible for contemporary users to trace or reawaken the metaphorical links without resort to specialized etymological information. Both historical and conventional metaphors share the trait of conventionalization, as evidenced, for example, by their lexicalization in contemporary dictionaries (Müller 2008: 183-185).

Lakoff and Turner thus operate with a tripartite typology of metaphor: *dead* [i.e. *historical*], *conventional*, and *novel*. Müller explains that novel metaphors are not conventionalized (that is, codified in the standard lexicon of the language), unlike both historical and conventional metaphors. On the other hand, both novel and conventional metaphors are transparent because their metaphorical meanings can be traced to

⁹ "One-shot" metaphors involve the mapping of one image over another, rather than any systematic conceptual mapping. They tend to affect one word only. With regard to *pedigree*, Lakoff explains that the word originally involved a conceptual mapping between two conventional images, a crane's foot and a family tree diagram, together with a linguistic mapping from the French term for crane's foot, "pie du grue." The source image and terminology are now gone, so no contemporary image or terminology mapping is still possible: a truly dead metaphor (Lakoff 1987: 143-145).

¹⁰ Lakoff explains that the English word *comprehend* comes from Latin *comprehendere*, which meant both "to grasp together [physically]" and "to grasp mentally" (Lakoff 1987: 145). Only the latter sense of *comprehend* is evident in contemporary English.

¹¹ Steen finds both senses in a 1974 British dictionary, but not in more recent dictionaries of contemporary English (Steen 2007: 6-7).

contemporary basic senses, meaning that the lexical/semantic link between the two senses is accessible. Historical metaphors, by contrast, are opaque for most speakers. Black too recognizes a metaphoricity cline ranging from *extinct* to *dormant* to *active*, but adds that “not much is to be expected of this schema.” Thus, although he recognizes the validity of a tripartite typology of metaphor, he feels justified in conflating the extinct and dormant metaphors into the single (uninteresting) category of dead metaphors and instead focuses his energies on active metaphors alone, the “metaphors needing no artificial respiration” and thus the only ones worthy of study (Black 1993: 25).

Following the tradition established by Lakoff and Turner, a number of alternative metaphor typologies have been suggested. What they tend to share is a reflection of the several possible stages in the life of a linguistic metaphor (Croft and Cruse 2004: 204-206). To wit, novel metaphors are newly created and require an interpretative strategy, especially in the absence of sufficient context. The recipient must realize that a particular utterance has a non-literal meaning, understand that the relationship between target and source is one of real or perceived similarity, and realize which attributes of the source and target domains are being compared (Howarth 1996: 58-59, Winner 1988: 10-11). If what was once a novel metaphor becomes more commonplace, it evolves to either a conventional metaphor or a dead one, where its meaning becomes established in the mental lexicon and no longer requires analogical recourse to a conceptual metaphor. The distinction between conventional and dead metaphors lies in the degree of dependency of the metaphorical sense upon a literal sense. If the literal sense of a word is perceived as being more basic than its metaphorical sense, the metaphorical sense is a conventional metaphor, as exemplified by *grasp* in the expression *grasp the point*, where the link between the metaphorical sense of “understanding” and the literal sense of “gripping with the hand” is easily retrievable. If there is no longer any understood dependency between the literal and metaphorical meanings, the word or expression in question is a dead metaphor: “The ultimate conclusion of the career of metaphor” (Gentner and Bowdle 2001: 230). Deignan, for instance, argues that the “color” sense of *deep* is one such example (Deignan 2005: 42). Finally, some metaphors may be subject to “semantic drift” (Cruse 2004: 205). The metaphorical origin of such historical metaphors becomes obscured, usually because the literal sense of the word has fallen out of use. Such an outline of the life of a linguistic metaphor is also mirrored in the terminology of researchers who refer to conventional metaphors as “dying” (e.g. Traugott 1985) or “moribund” (e.g. Alm-Arvius 2006), indicative of the apparently unidirectional nature of a metaphor’s progress from birth to death.

Gentner and Bowdle roughly adhere to this description of a metaphor's life stages with a typology of metaphor conventionality that involves four different classifications (2001: 229-230). *Novel* metaphors (e.g. *science is a glacier*) involve literal expressions that have no generally associated metaphorical sense. By contrast, *conventional* metaphors (e.g. *a gene is a blueprint*) are comprised of words which evidence polysemy in that their literal and metaphorical meanings are connected through clear similarity. With *dead1* metaphors (e.g. *a university is a culture of knowledge*), however, the semantic link between the original and metaphorical meanings has been severed, so that the words used in the two senses are felt to be homonymous rather than polysemous. The source domain is irrelevant for the interpretation of the expression. *Dead2* metaphors (e.g. *blockbuster*) are those whose meanings are arrived at through the metaphorical meaning alone, as the original meaning no longer exists. Gentler and Bowdle's typology thus expands the *dead* metaphor of Lakoff and Turner into two distinct types.

Goatly too accepts the premise of Lakoff and Turner's threefold typology of metaphor, although he further muddies the terminological waters through his preference for the terms *dead*, *inactive*, and *active*. He contends, moreover, that there are two types of inactive metaphors: *sleeping* and *tired*. Both types of expressions evoke their literal meanings, the main difference being in their degree of metaphoricity, namely the metaphorical ground is even more clearly evoked in the case of tired metaphors than in that of sleeping metaphors. Goatly thus posits that a tired metaphor such as *cut* [budget reduction] easily evokes its metaphorical source, *cut* [an incision]. By contrast, such a link is less apparent in a sleeping metaphor such as *leaf* [page of a book], even though the connection to *leaf* [foliage] can nevertheless be reawakened due to the salient characteristic of shape. In addition, he postulates two types of dead metaphors. First, there are *dead* metaphors whose literal senses are either no longer in use or so distant from the metaphorical sense that the connection cannot be recognized by most speakers. Here Goatly provides the example of *pupil* [circular opening in the iris] which is a metaphorical extension from *pupil* [a young student], but requires a "complicated reconstruction" to resurrect the link between the two senses. Second, there are *dead and buried* metaphors where changes of form conceal the metaphorical connections for all but Latin scholars, illustrated by *clue* [a piece of evidence], originally a metaphorical extension from *clew* [a ball of thread] (Goatly 1997: 32-34). Goatly's typology thus attempts to refine the tripartite categorization, in recognition of the gradual nature of the metaphorical cline.

Perhaps the freshest perspective offered in recent literature is that of Müller, who rejects the traditional dead/alive dichotomy with a convincing argument that such a rigid distinction “uncritically mixes incompatible criteria” (Müller 2008: 208). She argues that linguistic theories traditionally argue that conventionalization leads to loss of both transparency and consciousness of metaphor. Cognitive theories hold that conventionalization results from pervasive usage, and they are influential in our thought even though unconscious in use. The problem, Müller contends, is that conventionalization and transparency are collective properties of the linguistic system. Consciousness of metaphor, on the other hand, involves the metaphorical processing of individuals. In essence, while the characteristics of conventionalization and transparency are fairly objective, that of consciousness of metaphor is subjective. A lack of systematic distinction between – or even recognition of – the contrast between collective and individual levels has led to a great deal of confusion. Müller’s solution is a dual system of categorization:

- 1) A relatively static system which categorizes metaphors on the level of the linguistic system, based on the two criteria of conventionalization and transparency. Here she proposes the tripartite system of *historical*, *entrenched* (borrowing from Lakoff and Turner), and *novel*.
- 2) A dynamic system which categorizes metaphor on the level of individual usage, based on degree of metaphorical activation or consciousness. Here, she proposes a dual system ranging on a scale from *sleeping* to *waking*, no clear-cut borders. Degree of metaphoricity for a particular word or expression will vary “for a given speaker or writer at a given moment of time” depending on intention and context. (See chapter 6 in Müller 2008 for a summary of her argument.)

She reasons, “Metaphors are members of a linguistic system *and* they are used by individual speakers and writers and comprehended by individual listeners and readers. Hence it appears to make perfect sense to also terminologically distinguish between these two forms of metaphoric life” (Müller 2008: 208-209, italics in the original). This important distinction is touched upon again at various points in this dissertation (especially in section 3.5, dealing with the methods used in the present investigation for categorizing of the degree of metaphorical conventionalization of the observed metaphors).

2.4.5 Metaphor and simile: Is a simile like a metaphor?

There are three main views regarding the relationship between metaphor and simile. The classical stance, based on the views of Aristotle, is the comparison theory according to which metaphors are implied similes. By this view, interpretation of a metaphor involves first transforming it into a simile. Thus, to understand *my love is a rose*, the statement must first be expanded to *my love is like a rose*, at which point the finding of similarities between *love* and *a rose* will lead to the meaning of the metaphor. Such a view suggests that there is

a literal equivalent for all metaphors, and excludes the possibility of blended domains wherein the meaning of a metaphor involves more than a simple comparison (see for example Cameron 2003, Cruse 2004: 16, Glucksberg and Keyser 1993: 406).

A second view, derived from the inclusion theory of metaphor, is that simile is implied metaphor. Here, metaphoric assertions are simply category assertions between subordinate and superordinate categories. “A simile [e.g. *A is like X*] is interpreted...by translating it into a metaphor,...reconstructing the supercategory [of which X is the prototype], and applying its defining features to A” (Cruse 2004: 212). This view applies only to so-called metaphorical similarities involving two domains rather than to literal similes which involve similarity across one domain only (e.g. *copper is like tin*) (Glucksberg and McGlone 1999: 1542).

These first two views have a certain “chicken and egg” logic to them, whereby each postulates which came first, the metaphor or the simile. In both cases, however, similes and metaphor are essentially equivalent, and mean the same thing (Glucksberg 2008: 74). A third stance avoids any such assertions by claiming that the two tropes are distinct due to a crucial difference in their propositional structures, even though both involve a metaphorical mapping across domains. In brief, “[t]he simile sets two ideas side by side; in the metaphor they become superimposed” (F.L. Lucas, as quoted in Grothe 2008: 14). To elaborate, the proposition *A is like B* involves a relationship of resemblance between A and B and the two domains of A and B are usually kept distinct. In the metaphor *A is B*, by contrast, certain properties of B are directly mapped onto A and the domains of A and B are blended (Cruse 2004: 212-213). As Holme explains:

Saying that *John is a bear* was stretching the bear category so that it would encompass *John* the human, thus blending one into the other. When a metaphor is hedged by an expression of similitude we are holding *John* and *bear* slightly apart, as if to suggest that John is like the bear class but not yet a fully paid-up member. (Holme 2004: 86)

This observation might explain why similes are perceived as weaker than metaphors, and why it makes sense to say “John’s not just *like* a tree, he *is* a tree” (see Black 1993: 30, Morgan 1993). Based on experiments investigating interpretation of metaphor and simile, Glucksberg concludes that metaphors are more often interpreted with “nonliteral, emergent attributions” whereas similes are interpreted with “literal, basic-level ones” (Glucksberg 2008: 75).¹² In a similar vein, Steen summarizes results from other investigations into the

¹² Specifically, Glucksberg summarizes subjects’ interpretations of the expressions *some ideas are like diamonds* and *some ideas are diamonds*. With the simile, “ideas” tended to be attributed with properties that may be ascribed to actual diamonds (e.g. “rare, desirable, shine, glitter, valuable”). With the metaphor, ideas tended to be attributed with properties that cannot belong to literal diamonds (e.g. “insightful, creatively very

perceived distinction between metaphor and simile, which indicate for instance that mappings based on attributes such as size and color (rather than relational predicates such as “X contains Y”) are preferred as similes and that “concrete vehicles trigger a preference for simile, while abstract vehicles trigger a preference for metaphor” (Steen 2007: 340-341).

The relationship between metaphor and simile may also be viewed in terms of levels of analysis. Because understanding of simile involves cross-domain mapping based on some real or perceived similarity, simile does constitute an instantiation of conceptual metaphor. On the linguistic level, however, similes rely on directly-used language, in contrast to the indirect language of metaphors. As Steen explains, “‘direct’ meanings are those meanings which are not understood in terms of another meaning,” (Steen 2007: 66), that is, language instantiating non-metaphorical literality. As an example, consider the following sentence, where the simile is underlined:

Bizarre, angry thoughts flew through my mind like a thousand starlings.¹³

Steen maintains that the verb is metaphorically used, a contention unlikely to cause controversy. “Thoughts” clearly cannot really “fly” and thus the verb instantiates indirectly metaphorical language, involving a mapping between the two domains of bird and thoughts. By contrast, the simile functions quite differently on the linguistic level, involving “a direct evocation of a concept for comparison: flying *is* done by starlings” (Steen 2007: 69, italics in the original). So while similes do involve metaphorical reasoning on a conceptual level, they are not metaphors at the level of the individual word and do not contain any metaphorically used words per se. This point is raised again in section 4.2.2 in connection with MIP, which does not identify similes.

2.4.6 Metaphor and metonymy

In general, metonymy has received less attention than metaphor even though Lakoff claims that it too is a basic form of cognition. Some researchers even claim that metonymy is a more fundamental cognitive process than metaphor (Panter and Radden 1999: 1). Although there exists no undisputed definition of metonymy, there is general agreement that it involves a mapping within a single experiential domain, unlike metaphor which involves two distinct domains. Moreover, whereas the principal function of metaphor is to facilitate understanding, metonymy primarily has a referential function conventionally expressed as a “stand-for” relationship (see for example Barcelona 2000: 32-33, Kövecses 2002: 147-148,

unique”). He explains that such properties are “emergent” because they belong to “the superordinate category of diamonds as valuable entities” (Glucksberg 2008: 75).

¹³ Steen borrows this sentence from Croft and Cruse (2004: 215).

Lakoff and Johnson 1980: 36). Metonymy thus provides mental access to a (typically) abstract entity through a more concrete or salient one, usually through a process of domain highlighting. For instance, in the PRODUCER FOR PRODUCT metonymy *Proust is tough to read*, the most central feature of the *Proust* domain is that he was a person. A secondary salient feature of *Proust* relates to his writing skills and works. These two elements are closely associated in experience, and the metonymy serves to highlight or make “primary a domain that is secondary in the literal meaning” (Croft 1993: 348). As Steen points out, metonymy is characterized by contiguity or co-occurrence whereas metaphor is characterized by the criterion of similarity; X is understood as Y in cases of metaphor, whereas X is understood via Y in metonymy (Steen 2007: 57-61).

To distinguish between metaphor and metonymy, Gibbs suggests the *is-like* test, a linguistic test frame that may be applied to language data:

Figurative statements of the *X is like Y* form are most meaningful when X and Y represent terms from different conceptual domains. If a non-literal comparison between two things is meaningful when seen in a *X is like Y* statement, then it is metaphorical; otherwise it is metonymic. For example, it makes better sense to say that **The boxer is like a creampuff** (metaphor) than to say **The third baseman is like a glove** (metonymy). (Gibbs 1999: 36, bold script in the original)

Such a rule of thumb is sufficient for distinguishing between many cases of potential metaphor and metonymy, and can therefore be helpful in many instances despite a disregard here for the distinction between metaphor and simile. A valuable addition to the *is-like* test is its metonymic counterpart (Steen 2007: 155), which could be termed the *can-stand-for* test, i.e. *a glove can stand for the third baseman*. Not all instances are so clear-cut, however. A crucial factor in the determination of metaphor and metonymy is context, which must therefore also be taken into consideration. The Pragglejaz Group, for example, contends that whether *cut down* in the sentence *Indira Gandhi was cut down by her own bodyguards* is metaphorical or metonymical depends on whether Gandhi was killed by, for instance, bullets (a metaphor) or a sword (a metonym) (Pragglejaz Group 2007: 31).¹⁴

Perhaps more importantly, however, metaphor and metonymy are often intertwined, despite their being two different processes. One reason for this intertwining is the blurring of boundaries of the semantic domains comprising the crucial distinction between metaphor and metonymy. The borders of any given domain are often fuzzy, so that the demarcation between metaphor and metonymy is not always clear. For example, some claim that many

¹⁴ The figurative/literal distinction is also sometimes determined by context, also in regards to metonymy and not just metaphor. Consider Croft’s example *The newspaper went under*, which can be interpreted figuratively as “The company producing the newspaper went bankrupt” (hence involving both metonymy and metaphor) or literally as “The physical paper went under the surface of the water” (Croft 1993: 363).

conceptual metaphors, particularly those grounded in physical experience, have an underlying metonymical basis. Kövesces (2002: 156), for example, traces how the conceptual metaphor ANGER IS HEAT (e.g. *a heated argument*) is derived from a causation metonymy, BODY HEAT FOR ANGER. Anger is perceived as the subjective increase in body temperature that one experiences when angry, an EFFECT FOR CAUSE metonymy. Body heat is then extended to the concept of heat in general, which is in turn mapped onto the abstract concept of anger, resulting in the metaphor.

Following such reasoning to its logical conclusion would entail the reclassification of all metaphors with metonymical motivation as metonyms. As Deignan explains, this would present a serious problem for CMT, with its emphasis on embodiment as a motivation for metaphor. In essence, metaphor would then become “largely limited to mappings that do not have any grounds in physical experience, such as ARGUMENT IS WAR or AN ELECTION IS A HORSE RACE” (Deignan 2005: 60). Such a drastic overhaul would, continues Deignan, lead to “the counter-intuitive placement of *heated* meaning ‘angry’ in the same category of *ham sandwich* meaning ‘customer who has just consumed a ham sandwich’” (Deignan 2005: 60). It is therefore perhaps more useful to view the processes of metaphor and metonymy as a continuum, where prototypical, or pure, metaphors and metonymies represent the outer poles. Between these two extremes lies an area where metaphor and metonymy interact in different ways.

Goossens offers a four-fold categorization to describe the different ways in which metaphor and metonymy can overlap or blend, although he notes that only two of the categories appear to occur with any frequency: “metonymy within metaphor” and “metaphor from metonymy.” The former occurs when “a metonymically used entity is embedded in a (complex) metaphorical expression” (Goossens 1995: 172), as in the expression *shoot one’s mouth off*. Here, *mouth* metonymically refers to the speech faculty, and is embedded in a metaphor involving a mapping between the domains of firearms and linguistic action. The latter, metaphor from metonymy, involves metonyms which have been mapped onto another domain, thereby becoming metaphors. For example, the phrase *beat one’s breast*, meaning to show grief in a way that may be exaggerated, finds its metonymic origins in the religious practice of physically beating one’s breasts while confessing sins. The metonyms which form the basis of such metaphors typically involve a transfer of non-linguistic scenes. As a result, context must sometimes determine whether the metonymical or metaphorical reading is appropriate. The term *close-lipped*, for instance, may mean that a person is completely silent, with lips closed (hence a metonym), or it could refer to a person

who is simply judicious in revealing any information of value (a metaphor) (Goossens 1995: 168-171).

When working with linguistic metaphor on the level of the lexical unit rather than the lexical phrase, however, Steen's contention that "[a]ny set of two conceptual structures can be simultaneously judged as more or less contiguous *as well as* more or less similar" (Steen 2007: 59) is perhaps more practical because it offers the possibility of a less complicated solution than that offered by Goosen's typology. By way of example, consider the relationship between seeing and understanding in phrases such as *I see what what you mean* (see Steen 2007: 60-61). Whether the mapping is metaphorical or metonymical provides a bone of contention among metaphor researchers due to the possibility of a literal tie between the physical condition of vision and the mental condition of understanding. In her discussion of sense perception verbs, Sweetser categorizes the relationship between physical vision and mental understanding as metaphorical (Sweetser 1990: 32-33). Steen notes, however, that she nevertheless explains the mapping not only in terms of similarity in the structural properties of the domains of sight and intellect (metaphor), but also in terms of contiguity between vision and knowledge (metonymy) (Steen 2007: 60).

One approach to resolve the ambiguity resulting from the fuzzy borders between metaphor and metonymy is advocated by Cameron in her study of metaphor in educational discourse. She reports that she individually evaluates each individual instance of the mapping for possible inclusion in her data (Cameron 2003: 69). A second possibility is that of inter-rater discussion to decide the status of ambiguous cases (see e.g. Low et al. 2008: 434). A third possibility is to simply acknowledge the close relationship between the two tropes, but overtly choose to place emphasis on similarity rather than contiguity in the identification of metaphor (Steen 2007: 60-61). The working solution utilized in the current study is discussed in section 4.9.

2.5 Metaphorical competence

A common observation among teachers of a foreign language is that the student-produced oral and written discourse of even fairly advanced learners is often clearly identifiable as non-native. Teachers are often unequipped to offer their students useful feedback and instead resort to the less-than-satisfactory "it just doesn't sound right" or "that's not the way we would say it" sort of explanation. The root of the problem goes beyond pure grammatical or communicative proficiency, and may be linked to the *metaphorical competence* of the learner (Danesi 1993: 490, Philip 2006a). This term is most often found

in research about the L2 language learner, as production and interpretation of metaphorical expressions is often considered more challenging in an L2 than in the L1. Metaphorical competence concerns the ability to understand and produce linguistic metaphors, or the ability to decode and encode metaphorically structured concepts. Moreover, speed in finding plausible meaning in metaphor also plays a role (Littlemore 2001a: 461). Due to the innate cognitive nature of metaphor in both language and thought, L1 speakers tend to have a high degree of metaphorical competence, at least in regards to conventional and dead (that is, entrenched) metaphors, because they in some sense mirror thought. Individual differences in L1 metaphor competence are perhaps greatest when it comes to the interpretation of innovative metaphors. Pollio and Smith find, for example, that “the perception of anomaly (and metaphor) is highly dependent on individual judgments” (Pollio and Smith 1980: 325). Nevertheless, Pollio and Burns’ findings indicate enormous lexical flexibility among L1 speakers, “under the right circumstances almost anything is potentially interpretable...[even]...the rather ungainly monstrosities we palmed off on them as sentences” (Pollio and Burns 1977: 257).¹⁵ As Black notes, there can be no dictionary of metaphors because there are simply no fast and solid “rules for ‘creatively’ violating rules” (Black 1993: 24). Hence, what one reader might regard as a mistake could be regarded by others simply as a non-canonical way of expressing a particular sentiment.

Low embraces a more encompassing definition of metaphorical competence, adopting a skills approach as opposed to a more narrow focus limited to the cognitive processes involved in metaphor. He enumerates “a number of skills related to metaphor which native speakers are frequently expected to be good at, and which learners need to develop to some degree if they hope to be seen as competent users of the language” (1988: 129). These include the ability to interpret seemingly anomalous sentences, as well as knowledge about the boundaries of conventional metaphor which includes awareness of what people tend not to say. Furthermore, learners should be aware of certain socially interactive aspects of metaphor, such as awareness of socially sensitive metaphors (for example, animal metaphors in connection with gender) or of the possibility of multiple layering, when an expression refers simultaneously to both literal and metaphorical meaning (Low 1988: 133-134). Such *bridge* metaphors are especially common in newspaper headlines, advertising, and puns which call for an understanding on several levels. Consider,

¹⁵ Their examples included *She charged them by sudden sweet hats* and *A bird has raised up gray neighbors* (Pollio and Burns 1977: 253 and 257). In a similar vein, Piaget notes an “illusion of understanding” evidenced among children who offer apparently logical explanations for proverbs which are at odds with their actual meanings (cited in Winner 1988: 34-35).

for example, the slew of online jokes after Toyota announced a massive recall in early 2010 due to a faulty gas pedal, including *Toyota. Moving forward. Whether you want to or not* and *Toyota. We brake for, well, nothing*.¹⁶ The humor here lies in the simultaneous appeal to both the basic and metaphorical meanings associated with motion, i.e. the forward propulsion of a car and the conceptual metaphor PROGRESS IS FORWARD MOVEMENT (realized by the linguistic metaphors *moving forward* and *brake*).

Littlemore and Low contend that the degree of metaphorical competence depends on the learner's cognitive style, a person's "habitual way of perceiving, processing and acquiring information" (Littlemore and Low 2006a: 80). Those who learn holistically, seeing the whole picture as a gestalt as it were, may be more likely to deviate from the source domain in interpreting metaphor than those who learn analytically by dividing language into separate elements. Similarly, metaphorical competence often depends on imagery, so those with an "imager" cognitive style who learn best when presented with visual images may have an advantage over those with a "verbaliser" cognitive style who prefer to process information verbally. They furthermore speculate that learners with a higher threshold for ambiguity may be more willing to take risks in language learning by, for example, guessing the meaning of words. Lastly, powers of intuition play a role in the ability to perceive and seek out patterns and relationships, also an important skill as metaphorical meaning is created by the link between two separate domains (Littlemore and Low 2006a: 79-84).

Studies of metaphorical competence indicate the existence of individual differences in both the tendency to use and interpret metaphorical expressions, and that these differences are most perceptible in relation to L2 language learners because of two main factors: 1) their different cultural background, and 2) their generally poorer vocabulary, at least when compared with native speakers (Pollio and Smith 1980). Indeed, Davies claims that one of the defining characteristics of the native speaker is the "unique capacity to write creatively (and this includes, of course, literature at all levels from jokes to epics, metaphors to novels)" (Davies 2003: 210), although he notes that this is a contingent issue, meaning that it is possible for an L2 learner to become a target-language native speaker in this respect. In any case, metaphorical competence most likely contributes to a learners' overall communicative competence, both in terms of accessing the intended meaning of an L1 speaker or writer and conveying their own attitudes and ideas more effectively (Littlemore

¹⁶ Source: <http://twitter.com/search?q=%23newtoyotaslogans> (Retrieved February 9, 2010). See also section 2.4.2.1 for further discussion about bridge metaphors.

2001b: 466-467, 2001c). For instance, learners' errors may impede communicative success simply because the extra effort required for comprehension may "make the reader tired or irritated" (Johansson 1977: 43).

Heightened awareness of metaphor as a phenomenon can lead to increased metaphor competence by aiding in the acquisition of L2 vocabulary and grammatical structures (Alexander 1983, Deignan et al. 1997). Research has shown that explicit knowledge of metaphorical motivations helps in the retention of vocabulary as well as the generation of innovative metaphors in the L2 (see for example Boers 2004, Charteris-Black 2000). In other words, "students' awareness of conceptual links is beneficial in comprehending and using the target language effectively" (Csábi 2004: 250), which is particularly important given that many, and perhaps most, extensions in the lexicon are accounted for by figurative language such as metaphor, metonymy, and synaesthesia (Dirven 1985: 87). That metaphorical meanings sometimes "simply take over from older, technical, or literal meanings" is particularly evident in the language of science, where words for technical vocabulary come to be words of social vocabulary. Lerer, for instance, cites how the meaning of *affinity* has shifted from the field of static electricity and magnetic attraction to the language of emotion (Lerer 1998). Explicit knowledge concerning motivated meanings may also aid in the learning of grammar, such as in the case of metaphorical prepositions (Lindstromberg 1998, Niemeier 2004, Radden 1985).

2.6 L1 versus L2 language

L2 learner language is often contrasted with native (L1) language, an intuitively appealing concept yet difficult to pin down.¹⁷ Pawley and Syder (1983), for instance, investigate both how native speakers are able to choose a way of expressing themselves that is natural, idiomatic, and grammatical (native-like selection) and how they are able to produce fluent stretches of discourse (native-like fluency). They conclude that the underlying foundations for both abilities rest on a knowledge of memorized sequences of so-called *prefabs*, which are prefabricated structures or chunks of language such as collocations, idioms, formulae, etc. The average mature English speaker knows and uses many thousands, which contributes to increased efficacy in communication (see also Nattinger and DeCarrico 1992:

¹⁷ Note that the terms *L1 speaker* and *native speaker* are used synonymously in this dissertation, despite the questions raised about the correspondence between the two concepts (i.e. is one automatically a native speaker of one's first acquired language, how many L1s can a single speaker have, can one choose one's native language, etc.) (see Kirkpatrick 2007: 8-10).

32). Pawley and Snyder contend that even though there are an infinite number of correct grammatical combinations,

native speakers do *not* exercise the creative potential of syntactic rules to anything like their full extent, and that, indeed, if they did so they would not be accepted as exhibiting natively-like control of the language. The fact is that only a small proportion of the total set of grammatical sentences are natively-like in form – in the sense of being readily acceptable to native informants as ordinary, natural forms of expression, in contrast to expressions that are grammatical but are judged to be ‘unidiomatic’, ‘odd’, or ‘foreignisms.’ (Pawley and Syder 1983: 193)

In other words, L1 language is fairly conventional, something Philip also notes in studies of metaphor and Italian L2 English. She writes that although metaphorical concepts may be drawn upon to create new metaphorical expressions, such encoding is not random but determined by linguistic norms of conventional collocations and phraseology. Learner “creativity” in a foreign language often stems from inappropriate transfers of L1 conventional collocations into an L2 where such collocations are rare or nonexistent (Philip 2005, see also Philip 2006a). L1 speakers, argue Pawley and Syder (1983), are able to produce novel metaphors through conventional forms by subtly manipulating familiar word combinations. Philip characterizes this type of manipulation as “seamless,” adding that native speakers who alter a conventional expression automatically make any necessary grammatical changes so that there is no disruption in the communicative flow. L2 learners are not as adept at such adaptation of conventional expressions (Philip 2005).

Kjellmer also notes the conventionality of native speaker language, similarly attributing it to a large number of word combinations in the mental lexicon. Having developed a driving analogy, he concludes “just as in driving, we use semi-automated routines in speaking and writing, both traffic rules/grammatical rules and road network/a set of lexical stretches are essential to ensure adequate communication” (1991: 122-123). This image coincides with an earlier description of the workings of the mental lexicon:

We start with the information we wish to convey and the attitudes toward that information that we wish to express or evoke, and we haul out of our phrasal lexicon some patterns that can provide the major elements of this expression. Then the problem is to stitch these phrases together...and if all else fails to generate phrases from scratch to smooth over the transitions or fill in any remaining conceptual holes. (Becker 1975: 62)

According to Kjellmar, L1 speakers have access to numerous prefabs in speech and writing whereas L2 learners build language with “bricks” instead of ready-made word combinations. The latter often have to actively create combinations in the L2 which may or may not be in the mental lexicon of the L1 speakers of that language; “[the L2 learner] will inevitably be hampered in his progress, and his output will often seem contrived or

downright unacceptable to native ears. Analogous phenomena can be observed in his written output” (Kjellmer 1991: 124). Such deviation may affect the intelligibility of a text, sometimes in almost imperceptible ways, other times quite seriously. Researchers postulate that unusual word combinations increase the processing effort required for text comprehension by diverting the reader’s attention away from the content to the form of the message and leading to “the decomposition or analysis of a normally unanalysed complex” (Howarth 1998: 176, see also Nattinger and DeCarrico 1992: 19). In turn, this may result in a lack of precision in the written text or even – in the worst case scenario – “complete loss of intelligibility” (Howarth 1996: 163). Hoey perhaps somewhat charitably characterizes such cases as a form of creativity because they “surprise us in some way, [...] because they are momentarily hard to process or make us aware that they are indeed made of language” (Hoey 2005: 153).

There is, however, a degree of subjectivity involved in the judgement of non-nativeness, as well as in the effects of seemingly incongruous text. An implicit presupposition behind many claims about L1 competence is that native speakers can hardly do wrong, being able to play with language both consciously and unconsciously and twist it in ways to suit the situation at hand. Yet in reality, one cannot simply assume the underlying linguistic competence of either the L1 or L2 speaker. Corder’s distinction between errors and mistakes (Corder 1974: 24-25) arguably lies at the heart of the infallible native speaker concept. Mistakes are non-systematic performance errors sometimes involving slips of the tongue/pen. Errors, by contrast, are systematic and reveal the state of the transitional competence of the speaker. L2 language learners may commit errors - revealing their lack of competence in the L2 - but they also sometimes make mistakes, which are insignificant in terms of language learning. An underlying claim of many researchers is that adult native speakers, who are competent in their L1, primarily make mistakes and rarely commit errors. Such a view of the infallible native speaker is referred to by James as “native speakerism,” one which he explains has been challenged. As an example, he contends that while L1 language may be more idiomatic, L2 language may be more grammatically accurate (James 1998: 46-52). Furthermore, as Howarth explains, identifying possible causes of deviation in learner texts is less straightforward, because “whether they ‘really know’ the assumed target collocation [i.e. a mistake] or whether the deviant form is the result of incomplete knowledge [i.e. an error]” (Howarth 1996: 150) is impossible to judge.

Hoey’s (2005) theory of lexical priming narrows the gap between conceptions of the L1 and L2 speaker of a language. He posits that all words are primed for use in certain

collocations through the totality of all encounters with those words, resulting in a rich mental gloss or encyclopedic view of each term. Because no two people encounter and interpret language in exactly the same way, priming is individual and changes over time with new experiences. We are all “in a permanent position of learning” (Hoey 2005: 184), something which helps explain how L1 language can vary greatly from one individual to the next. There must, of course, be a good deal of harmony in the language priming of a speech community, for otherwise communication would be impossible. But because there is no universal consensus for priming, Hoey contends that the distinction between the L1 and L2 learner is not great. More specifically, both are lifelong learners, continuously gathering information about the language in question. He continues by arguing that the main differences arise out of the potential for transfer from an L1 to an L2 (because L2 primings are superimposed on previously-held L1 primings), as well as from the quality and quantity of language exposure. Davies adds that a further distinction between the L1 and L2 learner is that the native speaker must combine the position of learner with that of being the language authority who is “relied on to know what the score is...because s/he...is the repository of ‘the language’” (Davies 2003: 207). In the end, the most accurate definition might be that of Davies: “To be a native speaker means not being a non-native speaker” (Davies 2003: 213). The main point here, however, is that L1 speakers are not omniscient when it comes to their own language. They certainly make mistakes; they also commit errors (and in practice, of course, it is frequently difficult to distinguish between the two). Accordingly, the concept of native-like language must necessarily also encompass those mistakes and/or errors to which L1 speakers are also prone.

An additional important consideration is that L1 English is more than just a concept in linguistics. It is also inextricably bound to issues such as those of linguistic prejudice, cultural identity, and colonialism (see for example Jenkins 2003: 81-83, Kirkpatrick 2007: 5-7, McKay 2002: 28-32). Even the term “non-native speaker” is condemned by some as being derogatory, a term which “reinforces the view that non-L1-users are failed ‘native speakers’ whose English is riddled with errors [or who are] perpetual learners who are forever deviating from ‘native-speaker’ norms” (Prodromou 2009: 164). Thus, certain issues relevant to the present study relate to the question of authority and the dichotomy between prescriptive and descriptive approaches to language. Who “owns” the English language? How may/should acceptability be judged? Sensitivity to these questions can lead to the employment of various euphemisms on the part of researchers who may be unwilling to call a spade a spade by unambiguously declaring that something is clearly incorrect. For

example, “unusual” aspects of learner language have been variously referred to as *unconventional*, (*seemingly*) *anomalous*, *infelicitous*, *non-canonical*, *non-intuitive*, and/or as *non-native overindulgences*. On the one hand, the use of such terms may be viewed as an overly vigorous reaction to the idea of native speakerism, by which “[a]ny reference, no matter how objective or how constructive, to a defect in the learners’ language is taken to be disparaging and is roundly condemned” (James 1998: 48). On the other hand, caution in the use of descriptive labels for (both L1 and L2) learner language serves as an acknowledgement of creative potential when it comes to language production to which both native and non-native learners are entitled. As Widdowson remarks, “The very fact that English is an international language means that no nation can have custody over it. [...] An international language has to be an independent language” (Widdowson 2003: 167-168).

2.7 English in Norway

Norwegians are said to be a plurilingual people. Government documents claim that by the end of the mandatory schooling period, Norwegians are meant to have achieved various degrees of competence in a number of languages. These include a combination of (some of) the following: the two national varieties of Norwegian plus other local dialects, English, Swedish and Danish, one or more of several other languages including Sami or Kven/Finnish, one of the languages recently brought to Norway by immigrants, and/or a second foreign language such as Spanish, French, or German.¹⁸ English as an academic subject has relatively long traditions in Norway, having first been offered in the 1870s as an optional subject in some schools along the southern coast where the language was needed to facilitate trade and to help the seafaring population of the region (Simensen 2001: 176-177). The subject slowly spread and was finally made compulsory in the 1960s, when children then started learning English in the seventh grade. Since 1997, most children have started learning English already in the first grade, at the age of six.¹⁹ Norwegians are typically perceived as being good at English, a view which is held both by Norwegians themselves and by many who are in contact with them.

Indeed, English is generally viewed in Norway as a vital skill and few would question its importance in the Norwegian education system. Even students report that they enjoy learning English and see it as useful.²⁰ The 1997 reform to the Norwegian national

¹⁸ Source: Language education policy profile: Norway (2003-2004): 15.

¹⁹ Source: Stortingsmelding nr. 23: Språk bygger broer: Språkstimulering og språkopplæring for barn, unge og voksne 2007-2008: 57.

²⁰ Source: Stortingsmelding nr. 23: Språk bygger broer: Språkstimulering og språkopplæring for barn, unge og voksne 2007-2008: 57.

curriculum explicitly specified that the significance of the academic subject of English extends beyond mere linguistic goals to *danning*, a term which in essence refers to the promotion of individuals' sense of culture or civilization.²¹ English is meant to contribute to students' education by fostering respect and tolerance for other societies, contributing to other ways of thinking, and even helping students better understand what it means to be Norwegian (Simensen 2001: 177-178). The current Norwegian national curriculum (*Knowledge Promotion*, effective as of the 2006-07 academic year) defines English as one of only three core subjects, along with Norwegian and mathematics.

There is, however, some debate concerning the status of English in Norway. Some claim that English has become a second native language and, as proof, point to its ubiquity in everyday life, especially in the media (where films and television programs are subtitled rather than dubbed), advertising, business, etc. Studies report some support for this contention among students, who when asked, agree that "English just isn't a foreign language anymore" (Lambine (2005) quoted in Simensen 2008: 3). At the extreme, "some Norwegians fear that English might take over from the national language."²² Those who believe that the Norwegian language is threatened by English typically cite the widespread use of English in popular culture, business, and tertiary education, as well as the ever-increasing number of terms which Norwegian borrows from English. The influence of the internet and other modern means of communication, such as the widespread use of text messaging, also contribute to the endangerment of the Norwegian language (summaries of such claims are presented in, for example, Fløgstad and Vaa 2009: 129, Lie 2002). The director of the Norwegian Language Council, for instance, warns that English will supplant Norwegian within the next 100 years (Lomheim 2008). A slightly modified stance claims that "English is approaching the status of a second language" (Johansson 2009: 192), in transition from Kachru's Expanding Circle countries where English is an EFL to the Outer Circles countries where English is an ESL (Graddol, cited in McKay 2002: 10-11).²³ Norwegian is used "by the heart," while English is used "by the brain," a distinction which

²¹ The related Norwegian term *dannelse* is often translated to English by the German term *Bildung*. In English, the concept is encompassed by the broader goals of a liberal education.

²² Source: Language education policy profile: Norway 2003-2004: 16.

²³ Graddol mentions the decision by international corporations to conduct business in English as proof of such a shift (Graddol, cited in McKay 2002: 10-11). In Norway, the pros and cons of just such a policy, put into effect by the Norwegian oil company Statoil, were reported in the national press in early 2010. Statoil's one-sentence summary of its justification for its decision contained language errors, an irony that went unmentioned upon in the media: "In order to reduce the costs of maintaining the use of parallel languages in Norway, Statoil has an ambition to increase the use of English language" (Bordvik 2010).

is held to be gradually vanishing (Simensen 2008: 3, own translation). Others characterize English as the first foreign language, an L2, rather than an additional L1.²⁴

Although there is thus widespread agreement about the importance of English in Norwegian education and society at large, predictions concerning the future predominance of English over Norwegian are more controversial. Graedler, for example, cites evidence that “more people than before have some proficiency in English, and perhaps also that this proficiency is becoming qualitatively better” but continues “there is nothing to indicate that English will take over as the majority language in the foreseeable future [...] and English probably cannot even be called a minority language in any ordinary sense of the word” (Graedler 1998: 47).²⁵ In a similar vein, Fløgstad and Vaa conclude that Norwegian meets none of the UNESCO characteristics of an endangered language,²⁶ involving factors such as intergenerational language transmission, number of speakers, governmental policies, etc.; in short, “it is completely inconceivable that Norwegian parents will start speaking English to their children” (Fløgstad and Vaa 2009: 148, own translation).

Lehmann hypothesizes that roots of the debate over the status of English in Norway lie partially in terminological confusion, because the term L2 conflates (at least) two types of language learners. These groups are typically designated as learners of either English as a Second Language (ESL) or English as a Foreign Language (EFL). The general understanding of second language learning is that it takes place in a community which uses the target language. The learner is immersed in the L2 at all times and the main source of motivation for learning the language is acculturation to the L2 community. Hence one may argue that L2 acquisition in such a situation in many ways resembles L1 acquisition. Foreign language learning by contrast takes place outside the target area, and the only learner motivation – at least for the youngest learners – may simply be that English is a part of the curriculum. English is confined in large extent to an hour or two per week in the language teaching classroom, so that students’ exposure to the language is more restricted than is typically the case with ESL. EFL involves more conscious learning than unconscious acquisition as compared with ESL. Lehmann continues by arguing that the English input from international media, for instance, does not weigh up for the fact that the language of

²⁴Source: Stortingsmelding nr. 23: Språk bygger broer: Språkstimulering og språkopplæring for barn, unge og voksne 2007-2008: 57.

²⁵ Graedler still holds this view in 2010 (personal correspondence).

²⁶ Source: UNESCO Ad hoc Expert Group on Endangered Languages 2003.

the community in Norway is Norwegian and that English is therefore a foreign language rather than a second (or first) language (Lehmann 1999: 85-98).²⁷

Lastly, apart from the question of whether English is a second L1 or an L2 in Norway, the past decade has also witnessed concerns that the Norwegian school system is failing students in certain crucial areas. Lehmann, for instance, argues that 30 years of the communicative approach with its emphasis on communication rather than accuracy or competence have failed to meet the needs of tertiary students. A relatively high level of conversational fluency does not necessarily correspond to a similar level of academic proficiency. Lehman documents a low degree of competence in academic English among Norwegian students, who have never been exposed to or developed the skills associated with the written medium during their educational careers. She reasons that fossilization could also play a role, speculating that students simply become tired of English after so many years, assume that their English is good enough, and lose the motivation to improve. In addition, however, she finds that students consistently overestimate their English skills, something which indicates that they might not even be aware of their real competence (Lehmann 1999). Hellekjær argues that the problem is one of quality rather than quantity. In his study of foreign language in the business arena, he finds while many employees possess a certain degree of English language competency, that proficiency is not sufficient to meet their professional needs. Delivery of wrong goods, lost sales and contracts, as well as social isolation at courses and conferences due to lack of language skills have all been the result (Hellekjær 2007). In sum, there are indications that Norwegians are in fact not as proficient in English as is generally assumed.

2.8 Consequences for the present study

The present study compares the occurrence of metaphor in the written production of Norwegian learners of English and British A-level students. The Conceptual Metaphor Theory provides the theoretical background for the understanding of metaphor which is adopted here. Important to note is that the object of identification and study in this investigation is *linguistic metaphor* only. Although there is some discussion of the possible underlying conceptual metaphors, such claims are based upon previous research rather than my own investigation (e.g. the claim that many metaphorical prepositions involve the TIME

²⁷ Lehmann specifically criticizes the common impression that Norwegians acquire a great deal of their English competence through the media by remarking that the quality of this competence can be questioned. Although popular culture may help students acquire the sounds of the language, the input is otherwise superficial and unsystematic (Lehmann 1999: 48).

IS SPACE mapping). Unless explicitly stated otherwise, the term *metaphor* as employed in this study is henceforth intended to refer in the following chapters to linguistic metaphors, and is used synonymously with the term *metaphorical expressions*. Following Cameron (2003), the terms *topic* and *vehicle* are adopted here as a means of referring to the two dimensions of most such linguistic metaphors, that is, the actual subject at hand and the metaphorical focus respectively. To refer to the corresponding conceptual labels, however, I follow Littlemore and Low's practice of employing the terms *target domain* and *source domain*. Note also that reference to the components of linguistic metaphors which are realized by prepositions is accomplished with the terms *trajector* and *landmark*. The former term refers to the most prominent participant (thus, with primary focus) in a profiled relationship, "the entity construed as being located, evaluated, or described." The participant receiving secondary focus is called the *landmark* (Langacker 2008: 70).

When it comes to the various issues in connection with CMT that have been touched upon in this chapter, the choice of approach here has been resolved thanks in part to the narrow focus on linguistic metaphor. The Metaphor Identification Procedure (MIP), discussed at length in chapter 4, is employed to identify the metaphors in my data, and many of the underlying theoretical positions which allowed for the development of MIP are consequently woven into this study. For example, the term *basic*, with its concise definition, is here preferred to *literal*, with its many and various connotations. Furthermore, simile is not identified in my data on the grounds that it involves directly-used language, even though both conceptual metaphor and metaphorical processing are fundamental to both simile and metaphor. As for metonymy, this study takes the position advocated in Bartsch (as quoted in Steen 2007: 60-61), which involves adopting a perspective for metaphor which recognizes the close relationship between similarity (in metaphor) and contiguity (in metonymy), but nonetheless places greater relevance on one of the criteria for the practical purposes of identification and later discussion.

Additionally, the narrow focus on linguistic metaphor makes it unnecessary to take a stand on the debate surrounding how metaphor is cognitively processed. Müller's "static" system is adopted here, where the metaphoricity of linguistic metaphors is measured in terms of the objective characteristics of conventionalization and transparency. Consciousness of metaphor plays no role in this categorization system, unlike in her "dynamic" system, as well as in most of the other proposed categorization schemas, many of which have been explicated here. Still, if pressed on the subject of metaphorical processing, I would lean towards Gentler and Bowdle's "career of metaphor theory" which

postulates that only novel metaphors involve active metaphorical processing. As will be seen, however, many of the novel linguistic metaphors identified in my data through MIP are arguably neither intended nor understood as metaphorical, even though they meet the MIP criteria for metaphor.

Regarding the L1/L2 divide, the position taken here follows that of Graedler (1998) and Lehmann (1999), that English in Norway is an L2 rather than a second L1. In Norway, English is studied as a foreign language (EFL), not as a second language (ESL). This study thus examines written Norwegian L2 English, which is compared with L1 English produced by British A-level students. Various terms employed in this study such as *L2 learner* and *non-native speaker (NNS)*²⁸ to refer to foreign learners of English are not intended as disparagements, but simply as an acknowledgement that such speakers do not have English as their L1. Following Hoey, however, the difference between such L1 and L2 English need not be so great, as both groups of writers are still in the position of learning language. Indeed, the British LOCNESS texts are not regarded here as a role model for Norwegian writers, as the possibility for such young, novice writers to commit both mistakes and errors is clear. Still, the NICLE writers would seem to face an extra hurdle with which the LOCNESS writers do not have to contend, that is, possibility of negative transfer from Norwegian which Philip (2005, 2006a) notes can result in the production of inappropriate expressions in the L2 as well as less “seamless” adaptation of contextual syntax. Language transfer is consequently one of the issues discussed in section 3.6.1 and explored in subsequent chapters.

²⁸ The acronym NNS often appears in the same context as NS, standing for “native speaker.” Although some controversy also surrounds this use of this term, it is here used as a convenient means of referring to the LOCNESS writers, whose L1 is English.

3 Material and methods

3.1 Introduction

This chapter opens with section 3.2, which describes the material employed as the primary source of data for my study. It opens with a brief description of what corpora are and how they facilitate the relatively new approach of corpus linguistics. Included here is an explanation of how the quantitative data which corpora generate is later interpreted in terms of statistical significance. The chapter then narrows in focus to a discussion of computer learner corpora, followed by descriptions of the two corpora providing the primary material for this study, the Norwegian component of the International Corpus of Learner English (NICLE) and the Louvain Corpus of Native English Essays (LOCNESS).

The chapter then turns in section 3.3 to the methods employed to carry out my study, beginning with outlines of the two methodological approaches which underpin the entire investigation. The first is Granger's *Contrastive Interlanguage Analysis*, which constitutes the general approach to learner language analysis employed here. The second is Pullum's *reflective equilibrium*, which provides justification for the application of an overall approach whereby consideration of corpus data is balanced with that of other sources such as dictionaries, grammar books, informed intuition, and opinions of language users.

Next, general issues of metaphor identification are taken up in section 3.4 before the discussion narrows to an introduction to the system of metaphor identification adopted in this study, the Metaphor Identification Procedure (MIP). This discussion is quite brief, as MIP is explained and discussed at length in chapter 4.

Afterwards, the procedure employed to categorize the identified metaphors according to their degree of conventionality is presented in section 3.5. As indicated by the discussion on typology of metaphor in section 2.4.4, there is a wide array of proposed categorization schema and terminology for metaphorical conventionality. In this section, I therefore clarify the terminology employed throughout this study, as well as explain the methodological procedures for distinguishing between the various categories of conventionality. Additional related issues touched upon here include the extent to which corpora are used as a resource to help determine degree of conventionality together with a presentation of those corpora that have been consulted in this regard, the contrast between the abstract and the concrete, and the categorization of "empty" words.

The approach taken for the qualitative investigation of the identified novel metaphors is outlined in section 3.6. Here the focus is on the identification of possible sources of motivation for the production of such metaphors. Language transfer is discussed in some depth, whereas other potential factors are just touched upon here and discussed at greater length in chapter 6 in connection with novel lexical metaphors, as well as in chapter 7 relating to the discussion of congruence in preposition use in the L1 and L2. The main focus here is the presentation of a valid means of determining language transfer, together with a description of the various resources I have employed to do so. Finally, brief concluding remarks are offered in section 3.7.

3.2 Corpora

Simply put, a corpus is a collection of texts, typically exploited by linguists to investigate the performance data of language users, i.e. language as it is actually used. Although literary scholars and historical linguists have typically used corpora as their primary data, scholars of contemporary languages have often resorted to native-speaker introspection as their main source of data (Leech 2007: 315). Before the advent of the computer era, corpora were rather impractical, being both error-prone and expensive, forcing the would-be corpus linguist into time-consuming manual searches of large amounts of data. The 1964 publication of the Brown corpus of American English, however, heralded what many consider to be the introduction of the machine-readable/computer/electronic corpus with all its accompanying practical advantages for research, offering linguists an alternative data source to supplement their own intuition and introspection, namely a vast array of performance data (Francis and Kucera 1979, Granger 2007b). Indeed, the quality of being machine-readable is today considered to be intrinsic to corpora and taken for granted (Taylor 2008: 195). McNery and Wilson add that corpora should also comprise a sample which is representative of the language variety under investigation, that they should usually be finite in size so as to accommodate quantitative studies, and that they should be widely available (McNery and Eilson 2001: 29-32).

Because they are computerized, present-day corpora offer the triple advantages of size, accessibility, and diversity. The Brown corpus consists of approximately one million words whereas the British National Corpus (BNC), compiled in the 1990s, contains 100 million words.²⁹ But not all corpora are finite in size. The Collins Cobuild Bank of English, for instance, functions as a monitor corpus and is open-ended, constantly expanding to

²⁹ See section 3.6.3.1 for a brief description of the BNC.

capture new words or changing uses of old words (McEnery and Wilson 2001: 30). Such unprecedented sizes allow researchers to investigate both frequent and less frequent language phenomena, sometimes leading to the observation of previously unsuspected aspects of language. And because the corpora are machine-readable, researchers have access to a wide range of software tools to retrieve and manipulate data. The simplest of these tools include count and display functions. More advanced tools such as concordancers provide and sort text lines on the basis of a search string – for instance, a word, part of a word, sequences of words, etc. – decided by the user. Moreover, computerization allows for the addition of extra information related to the assembled texts, ranging from simple mark-ups to linguistic annotation such as part-of-speech (POS) tagging which automatically assigns a tag indicating word class membership for each word in a corpus. Parsing and semantic tagging are also possible, with varying degrees of success (Granger 2007b: 177-178, Meunier 1998). Furthermore, many corpora are collected with a specific purpose in mind, so there therefore exists a huge diversity of corpus types to cover a wide variety of factors affecting language output, related to language (British English/American English, spoken/written, original/translated, etc.) and the informant (age, sex, native language, etc.) (Granger 2007b: 167 and 171).

3.2.1 Corpus linguistics

The widespread availability of computer corpora has led to the rise of corpus linguistics, based upon the use of electronic corpora. The corpus linguist “tries to understand language, and behind language the mind, by carefully observing extensive natural samples of it and then, with insight and imagination, constructing plausible understandings that encompass and explain those observations” (Chafe 2007: 56). In consequence, corpus linguistics involves a good deal of sitting, staring at examples, and thinking about them (Fillmore 2007: 219). There are, however, many competing interpretations of exactly what the term “corpus linguistics” entails. Leech (1992) goes so far as to call corpus linguistics a new linguistics paradigm rather than just an emerging methodology, because of its empiricist focus on language performance and description. Further definitions include discipline, field, linguistic branch, and approach, whereas yet other definitions refer “not to *corpus linguistics*, but to *corpus/corpus-based/corpus-driven/corpus-assisted + analysis/approach/study* etc.” (Taylor 2008: 183). Corpora lend themselves naturally to frequency analysis, leading to the stereotypical image of the corpus linguist as number cruncher, counting occurrences of linguistic phenomena without regard to any potential

significance (see e.g. Knowles 2007: 119). Fillmore neatly illustrates the supposed contrast between the intuition-based and corpus-based linguist as follows:

These two don't speak to each other very often, but when they do, the corpus linguist says to the armchair linguist, "Why should I think what you tell me is true?", and the armchair linguist says to the corpus linguist, "Why should I think what you tell me is interesting?" (Fillmore 2007: 197)

At the very least, corpus data provides authentic examples of the language, saving researchers the time and effort of assembling their own material (Francis 2007: 286). But perhaps more importantly, corpora can be utilized to reveal (sometimes non-intuitive) similarities and differences between language varieties as well as test linguistic hypotheses.

There are, however, limitations to the conclusions that one may draw on the sole basis of corpus evidence. Any corpus is necessarily limited by size and/or text type, so it is advisable to be cautious when making generalizations. Moreover, although they can provide at times very convincing proof of linguistic patterns, corpora cannot provide negative evidence. Just because a pattern is not readily manifest in a corpus does not automatically mean that it never appears. There are many grammatically acceptable and meaningful utterances that might not appear in any corpora. On the other hand, Pullum mentions "the well-known presence of ill-formed structures in attested material" (Pullum 2007: 45). Just as there are an infinite number of grammatical sentences which have never been said, there are also many ungrammatical sentences which have been uttered. Fillmore adds, "there are no corpora of starred examples: a corpus cannot tell us what is not possible" (Fillmore 2007: 219). Incorrect or inappropriate constructions are not explicitly marked as such in corpora.

3.2.2 Quantitative data and statistical significance

Computer corpora make large amounts of data readily accessible. In investigations that have any pretensions to quantitative research, such as the present study which investigates the metaphoricity of a large number of lexical units and makes some comparison across groups, it is vital to have a means of determining whether the findings have any statistical significance. The chi-squared (χ^2) test of independence offers a way to determine whether the observed relationship between two categorical variables, such as the number of metaphorically related words in a text and the L1 of the writer, indicates independence or association between these two factors in the overall population. This test shows whether a particular distribution is potentially important by indicating the probability of its being due to chance distribution or to a genuine difference. It calculates a value based upon the difference between the actual frequencies in the data (the observed frequencies) and those that one would expect based on chance alone (the expected frequencies). Greater differences

between the observed and expected counts will produce bigger χ^2 figures, thereby negating the null hypothesis H_0 that there is no association between the variables and that differences are therefore due to chance (Agresti and Franklin 2007: Chapter 10).

Some differences in any given sample are to be expected, however, even in those cases where there is no dependence between variables. Consequently, in order to interpret the magnitude of χ^2 value, it is converted into a probability of error value (p -value), which indicates the likelihood of obtaining the observed results when the null hypothesis of independence between variables is true. As χ^2 increases, the p -value decreases, indicating that the obtained results are unlikely to be due to chance. The p -value necessarily runs along a continuum from 0 to 1 and a cut-off point for significance must therefore be assigned (Agresti and Franklin 2007, Gries 2009: 184). In linguistics (and most other fields), this significance level is typically set at $p=0.05$, corresponding to a probability of error of 5% or lower. That is, when $p=0.05$ then there is a 5% probability that the difference in observed and expected frequencies is due to chance, whereas there is a 95% probability that the difference in frequency is a reflection of true variation. Thus, if $p < 0.05$, then the results are said to be significant and if $p > 0.05$, then the results are not significant (see e.g. McEnery and Wilson 2001: 98, Meunier 2007). Although I explicitly state the exact results of statistical calculations (e.g. $\chi^2= 3.97$ (df=1), $p=0.05$), I also follow the custom within the field of corpus linguistics of expressing degrees of significance as follows (Stefanowitsch 2004):

If $p \leq 0.05$, then the results are “significant.”

If $p \leq 0.001$, then the results are “very significant.”

If $p \leq 0.0001$, then the results are “highly significant.”

If the values of observed frequencies are too small (less than 5), then the χ^2 test is inappropriate because it is an asymptotic or large-sample test and any calculated χ^2 results would therefore be invalid (Meunier 2007). In such cases, a small-sample statistical test of independence, Fisher’s Exact test, is utilized here. The p -value for the same or a stronger association (the one-sided p -value), generated on the basis of the Fisher’s Exact statistic, indicates the probability of the observed figure if the null hypothesis is true (Agresti and Franklin 2007: 514-517). It is reported as is and interpreted following the same guidelines as for the χ^2 statistics. All statistical values in the present study have been calculated with the help of “SISA” freeware.³⁰

³⁰ <http://www.quantitativeskills.com/sisa/index.htm>.

It is important, however, not to disregard Fillmore's armchair linguist who asks whether the corpus data can be said to be interesting. Indeed, calculated statistical significance in and of itself says nothing about the practical significance of the findings. As Stefanowitsch notes, statistical significance does not necessarily mean anything in terms of linguistic significance, i.e. the way language actually works. Indeed, Kilgariff (2005: 268) makes the point that given enough data, " H_0 is almost always rejected however arbitrary the data." The χ^2 figure is a result of both correlation and sample size. Larger sample sizes necessarily entail larger χ^2 values, which in turn generate smaller p -values. Consequently, even a weak association can lead to apparently significant p -values if the sample size is large enough (Agresti and Franklin 2007: 508). Kilgariff adds that language in particular is non-random by nature, something which can always be verified given the vast amounts of data available through appeal to corpora; "the fact that a relation between two phenomena is demonstrably non-random, does not support the inference that it is not arbitrary" (Kilgariff 2005: 273). Statistical significance is, however, a prerequisite for attribution of linguistic significance. That is, if a difference is not statistically significant, then the question of linguistic significance is moot (Stefanowitsch 2004). Therefore, calculations of statistical significance are here treated as support for significance in the real world of language, indicating areas deserving of further investigation.

3.2.3 Computer Learner Corpora (CLC)

Collections of learner production in the form of Computer Learner Corpora (CLC) first appeared relatively recently, in the late 1980s/early 1990s. Actual learner performance is seen as key to uncovering information about learners' implicit knowledge about a language, their language competence (Francis 2007: 286). Most CLC do not contain data elicited through experiments, meaning that no control is exerted on the learner to produce specific structures. Although elicitation may prove helpful in, for instance, forcing the learner to produce infrequent language features, any such controlled experiment might cause learners to produce language which differs considerably from the language they would naturally use and thereby prove an unreliable measure of true learner performance and competence. Requiring learners to write in an L2 can in any case give rise to doubts concerning the naturalness of production, the flip side of the "teacher's paradox" that what we learn in the classroom can never be truly authentic (see Lehmann 1999: 19). CLC data may best be characterized as "naturalistic," that is, texts produced in or for the confines of the classroom using language that focuses on communication rather than form. As Granger states, "In as far as essay writing is an authentic classroom activity, learner corpora essay writing can be

considered to be authentic written data” (Granger 2007a: 49). Ellis and Barkhuizen characterize such data as clinical elicitation, involving tasks where the learners’ focus is primarily on message conveyance, and they rely on their own linguistic abilities alone rather than any form of specific linguistic guidance (Ellis and Barkhuizen 2005: 23). In the foreign language environment, naturalistic data such as free compositions or oral interviews come closest to naturally occurring texts (Nesselhauf 2004: 128). It should also be noted that CLC capture the production of novice writers, which partially redresses the tendency in corpus linguistics to represent professional writing only (for information about CLC see Granger 2007a, Granger 2007b, McEnery and Wilson 2001: 191-193).

CLC permit the marriage of corpus linguistics and Second Language Acquisition (SLA) research, whose primary goal is to investigate how a foreign/second language is learned. The language captured in CLC represents the learners’ interlanguage, that is, their own emerging approximation of the target language (see section 3.3.1 for more details about interlanguage). Studies of CLC can thus shed light on a wide variety of features, such as the extent of potential L1 influence, general learner strategies, phases of interlanguage development, and possible overgeneralization of L2 features (Ellis and Barkhuizen 2005: 343).

3.2.3.1 The International Corpus of Learner English (ICLE)

The International Corpus of Learner English (ICLE) is a 3.7 million word corpus of writing of supposedly higher intermediate and advanced learners of English, divided by L1 into 16 subcorpora of approximately 200,000 words each. This is considered a relatively large corpus in the context of computer learner corpora. ICLE was compiled with explicit design criteria relating to language and learner, some of which are common to all ICLE subcorpora and some of which are variable. Learner-related variables include age, gender, L1 and region in country of origin where important (i.e. for languages spoken as an L1 in more than one country), L2 exposure, and other foreign languages spoken. All of these variables are clear-cut in that they are well-defined and relatively unambiguous. Task-related variables include details related to genre, topic, and task setting (timed/untimed, part of exam or not, and whether reference tools were allowed). Such details are included in learner profiles filled in by each informant and linked to the relevant essay (Granger et al. 2009).

All informants are young adult EFL learners who met external criteria which ostensibly qualified them as advanced students of English. As a consequence, the ICLE texts were initially described as advanced (Thewissen et al. 2006). The concept of

proficiency in a foreign language is however a nebulous one, difficult to define on linguistic grounds. Reliance on external factors in determination of language proficiency has therefore been common practice. In the case of ICLE, all informants are university undergraduates, typically in their third or fourth year of English language and literature studies. They are thus “learners who are generally expected to have mastered the basic rules and regulations of the language they are learning” (Lorenz 1999: 10).

Unfortunately, a classification based on external criteria is problematic; almost any language teacher can attest that the number of years of language study does not guarantee a certain proficiency level. This problem is one the compilers of the corpus at the Centre for English Linguistics (CECL) at the Université catholique de Louvain are well aware of, and they have since specified that certain variables relating to learning context and learner proficiency are fuzzy, in that they are difficult, if not impossible to capture for the purposes of the creation of corpora. These include criteria relating to aptitude as well as various socio-psychological factors such as learner motivation, previous linguistic experience, and perceived language distance (i.e. the learner’s perception of the closeness between the L1 and L2), all of which contribute to overall proficiency (Meunier 2009).

In an attempt to redress this issue and thus gain a more accurate picture of the actual proficiency levels represented in ICLE, an independent professional rater evaluated a random selection of 20 essays from each L1 subcorpus, assigning each a proficiency level based on the Common European Framework of Reference for Languages (CEFR) descriptors for writing. The overall results showed variation in proficiency both within and across subcorpora, but the general conclusion was that the intra-subcorpus variation is greater. That is, some subcorpora clearly qualify as advanced (i.e. C1 and C2 levels on the CEFR grade scale) while others lie more in the intermediate range of B1 and B2 (Thewissen 2008). With respect to the Norwegian essays, 12 of the 20 texts (60%) were rated as advanced (Granger et al. 2009: 12).³¹

3.2.3.2 The Norwegian subcorpus of ICLE (NICLE)

The Norwegian subcorpus, NICLE, was collected at various Norwegian colleges and universities between 1999 and 2002, and consists of 317 essays comprising a total of

³¹ Two caveats should be noted here. First, the CEFR grading system is not watertight. Studies involving error annotation of essays already evaluated at the B2, C1 and C2 levels have uncovered discrepancies between the CEFR grade descriptors and the actual difficulties registered, and advanced suggestions as to how the CEFR scale could be changed (Granger and Thewissen 2005, Thewissen et al. 2006). Second, this particular study involved only a small selection of essays and one rater. More rigorous assessment is required to gain a more accurate overview of the ICLE proficiency levels (Granger et al. 2009: 11).

211,725 words. As holds true for the other ICLE subcorpora, all essays are roughly 500 words in length and unabridged. Essay topics are similar in that they are all non-technical and argumentative, the argumentative text type including “such essays whose titles imply the presentation and weighing up of arguments, writer’s criticism, or systematic outlines of abstract concepts” (Lorenz 1999: 12). This kind of essay was collected because it tends to contain many text structuring devices, and is therefore a rich source of lexico-grammatical patterns (Lorenz 1999: 13). Moreover, the wording in argumentative essays is likely to be that of the learners, although direct quotations are of course not precluded.

NICLE includes essays on 17 different topics, and the one which generated the most text (55,978 words) was chosen for the purposes of this project: *Some people say that in our modern world, dominated by science, technology and industrialisation, there is no longer a place for dreaming and imagination.* Note that NICLE was not included in the initial release of ICLE. I was only able to access the corpus in the form of one long text document which was given to me by the Norwegian project coordinator, Stig Johansson of the University of Oslo.³² Consequently, I had no access to the learner profiles and other statistics until they became available with the release of the second version of ICLE in mid-2009, long after I had completed my metaphor analysis of the Norwegian texts. The texts were thus chosen on the basis of topic and amount of text produced. The latter criterion was important due to my original intention of analyzing 50,000 words from each corpus rather than “only” 20,000 words; this particular theme inspired enough essays to have allowed me to confine my analysis to text concerning a single topic. Unfortunately, my original goal of 100,000 total words of text analysis proved overly ambitious given the time constraints imposed on my investigation (see also page 124 for further discussion about this point).

3.2.3.3 The Louvain Corpus of Native English Essays (LOCNESS)

ICLE was designed with the explicit purpose of enhancing SLA corpus research. The choice of control corpus plays a crucial role for any meaningful NS/NNS comparisons and observations. Factors affecting language (dialect, genre, medium, formality, etc.) play a role as does the proficiency level of the native speakers. The Louvain Corpus of Native English Essays (LOCNESS) was specifically designed as a reference corpus for ICLE, with the goal of making the choice of control corpus for anyone investigating learner language with the help of ICLE fairly straightforward. LOCNESS is a corpus of native English essays, containing 324,304 words of argumentative essays written by British A-level pupils and by

³² Permission was first obtained via email and granted in May 2006 by Fanny Meunier of the CECL.

both British and American university students. LOCNESS is thus a corpus of novice texts whose writers have English as their L1. These texts are intended only as a means of comparison with ICLE, rather than as a role model of perfect native writing. Any results from the present study should therefore be primarily interpreted descriptively rather than prescriptively, i.e. the goal of Norwegian learners of English should not necessarily be to approximate or emulate the language of British novice writers (see for example Leech 1998: xix).

Although both LOCNESS and ICLE contain essays of the same genre, the actual essay topics are dissimilar, with the exception of two topics given to one small group of American students.³³ In order to mitigate any potential effects related to topic differences between the British and Norwegian texts, I therefore selected essays dealing with topics that most closely paralleled the NICLE topic of how the development of technology may affect the fantasy of the individual. Texts chosen for metaphorical analysis thus include those concerning *Computers and the human brain* (4653 words) and *In vitro fertilization – genetic manipulation* (14909 words). Two short essays on *Problems facing the monarchy* (451 words) are also analyzed, for the simple reason that they had been sandwiched into the *In vitro* essay file. Assuming however that metaphors are indeed ubiquitous in language as the Conceptual Metaphor Theory claims, the precise topic of argumentation should not prove to be a decisive factor for the occurrence of metaphor as a whole, although it would dictate many of the actual linguistic metaphors utilized.

British rather than American essays were selected in order to adhere to the original conditions of MIP, which had been developed on the basis of British English found in the Baby British National Corpus (BNC Baby), as closely as possible. The BNC Baby is a sub-corpus of the BNC which consists of one million words of text from four genres (Berglund 2006: 140). Because linguistic metaphors may sometimes vary according to the particular dialect of the language in question, the restriction to British English is intended to lower the number of potential variables in the metaphor identification process. A-level essays rather than British university essays were chosen for four main reasons. First, the two corpora together contain texts written by three different sample populations: NNS undergraduates (in ICLE), NS upper secondary students (the LOCNESS A-levels), and NS undergraduates (the LOCNESS American and British university essays). Lorenz, who was the project coordinator of the German subcorpus of ICLE, maintains that this ICLE / LOCNESS

³³ See <http://www.fltr.ucl.ac.be/fltr/germ/etan/cecl/Cecl-Projects/Icle/locness1.htm> (Retrieved April 20, 2010).

combination is consequently graded according to “linguistic maturity,” whereby the NS undergraduate writers are considered most proficient and the NNS writers least proficient, with the A-level writers falling somewhere between the two (Lorenz 1999: 15-16).

Following this reasoning, the writing in NICLE would more closely correspond to the writing of the British A-level students. The factor of age plays a backstage role to that of L1 on such a proficiency cline. Although the NICLE writers are older and thus probably more mature in terms of life experience, the A-level students have the advantage of English being their L1. Second, Lehmann’s 1999 study of the academic English of Norwegian tertiary students shows that these students have not developed the necessary English skills typically associated with university writing (Lehmann 1999, previously discussed in section 2.7). Simply put, the written English of Norwegian students is not adequate, not being near the language proficiency of American or British university students. Third, Lehmann’s observations agree with my personal observations of Norwegian L2 written English in my seven years’ experience in teaching English courses at the tertiary level in Norway, where I have encountered numerous texts that display considerable problems in cohesion, transition, syntax, orthography, and lexis. My experience is matched by that of Hasselgård, who has accumulated similar impressions in her work with English students at the University of Oslo (Hilde Hasselgård, personal communication). Fourth, there is some precedence for such a comparison, such as Hasselgren’s study of lexical teddy bears, where she contrasts the language of British A-level students with that of advanced Norwegian students of English (Hasselgren 1994).

Finally, it should be noted that the collection of the LOCNESS A-level essays took place under less than optimal conditions. Although the contributors did submit learner profiles, these profiles were not electronic and have since been misplaced at the CECL. It is thus impossible to access this information for comparison with NICLE. Granger has said that the texts were collected in 1995, and she believes they were part of the students’ mock exams. As a result, they were most likely timed essays. Other than that, little more can be said. Granger debated whether to include them in LOCNESS at all due to the young age of the informants (around 16 years old), but chose to add them on the grounds that most people would be familiar with the type of expectations that could be met at the A-level (Sylviane Granger 2009, personal communication).

3.2.3.4 *Practical considerations relating to NICLE and LOCNESS*

Granger et al. report that the ICLE texts were submitted either electronically or in paper format. The texts submitted as hand-written essays were transcribed as faithfully as possible, “i.e. without correcting the errors or introducing new ones” (Granger et al. 2009: 13). The initial intention, however, had been to normalize “low-level errors” in the texts, a plan which was soon abandoned when confronted with the subjectivity necessarily associated with error.³⁴ Instead, the CECL adopted Sinclair’s “clean-text policy” of keeping texts intact when compiling corpora. He reasons that a blanket policy of leaving texts pristine better allows for investigations with different priorities and also avoids the imposition of an extra layer of analysis between the primary material and the researcher (Sinclair 1991: 21-22). All irregularities observed in the NICLE and LOCNESS texts are therefore analyzed in the present study as having been produced by the writers themselves rather than as having been introduced during the transcription process.

In addition, all citations from NICLE and LOCNESS in this study appear exactly as they do in those corpora, complete with any errors of syntax, spelling, punctuation and/or spacing found in the original. Each citation is followed by a tag which indicates the text from which it is found. Tags which contain the letters “NO” (for “Norwegian”) indicate that the text is found in NICLE. Tags with “ALEV” (for “A-level”) identify citations from LOCNESS. Furthermore, the learners’ expressions which appear in my data are usually presented in the full sentence in which they appear, even though only a portion of the sentence might have sufficed to illustrate the particular point under discussion. This decision is a conscious one on my part to provide the reader with as full a context as possible to be able to better understand my arguments.

3.3 **General methodological foundations**

Before launching into an explanation and description of the specific procedures utilized for metaphor identification, categorization, and further exploration, the methodological platform which underlies the entire study should first be outlined. This contains two components. First, *Contrastive Interlanguage Analysis* is used as a means of approaching and analyzing learner corpora and provides the basic foundation for the entire investigation. Second, *reflective equilibrium* justifies the consultation of many different resources –

³⁴ They write, “For instance, while the words **lesure*, **mouses* and *aggressivity* are all non-English words, the first is a spelling error, the second a grammatical error (irregular plural) and the third a lexical error (word coinage). Should all three be normalized or only the first?” (Granger et al. 2009: 13).

including intuition – in the search for answers, something especially useful when attempting to determine motivation for the production of metaphorical language.

3.3.1 Contrastive Interlanguage Analysis (CIA)

There are two main methodologies for the analysis of learner corpora, Computer-aided Error Analysis (CEA) and Contrastive Interlanguage Analysis (CIA). With CEA, all examples of the misuse of error-prone items in a corpus are annotated either with the use of software retrieval tools or by manually combing through a corpus and tagging errors (see Dagneaux et al. 1998). The latter method is contrastive, involving “carrying out quantitative and qualitative comparisons of native (NS) and non-native (NNS) data or between different varieties of non-native data” (Granger 2007a: 52). Such varieties are collectively known as interlanguage (IL), consisting of idiolects that share characteristics of both the learner’s L1 and the L2 (and sometimes other languages as well), illustrated in Figure 1.

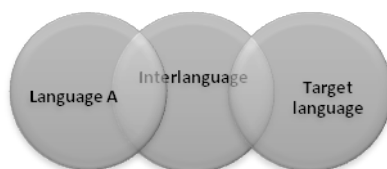


Figure 1: Pictorial representation of Interlanguage (adapted from Corder 1981: 17)

Interlanguage is unstable in the sense that it is a transitional dialect which changes as the learner accumulates more knowledge about the target language (Corder 1981: 85). Lehmann points out that such change may not necessarily reflect any linear or systematic pattern, noting for example how supposedly familiar forms of a language item may suddenly be altered by the learner (Lehmann 1999: 18).

Whereas the more traditional method of Contrastive Analysis contrasts features in different languages, CIA contrasts the production of native and non-native speakers who have written in the same language. CIA allows for two primary areas of investigation: a comparison of interlanguage (IL) and native language (NL) texts to shed light on various non-native features of the IL, and a comparison of different ILs (for example, French English vs. Dutch English) to uncover effects of different L1 variables on L2 production (Granger 2007b: 175-176). The IL vs. NL variety of CIA is the method utilized in the present project.

A potential disadvantage of using CLC to study interlanguage is that there are relatively few CLC available, and most of them represent a specific genre or text type. Generalization of results may be problematic, as some features of learner language may be specific only to a particular genre, rather than to interlanguage as a whole (Ellis and

Barkhuizen 2005: 336). Low, for instance, has noted a preference for certain metaphors in editorials and book reviews in academic journals (Low 1999: 57). It is therefore useful to keep in mind that this study deals with the identification of metaphors in argumentative essays of learners and does not pretend to make blanket statements about learner language as a whole. Detailed studies investigating learner metaphoricality involving other genres or text types would be necessary before more could be said.

3.3.2 Reflective equilibrium

Traditionally cognitive linguists have relied on data collected through intuition, elicitation, or surveys rather than that available in language corpora, a practice which has drawn criticism (Deignan 2005: 110). Pullum, for instance, calls complete reliance on intuition a discredit to theoretical syntax, as there can be no scientific validity to a “how-does-it-sound-to-you today” methodology conducted “on the basis of purported facts that are neither intersubjectively checkable nor potentially falsifiable” – a methodology which “lends itself to abuse.” Surveys, he says, can produce meaningful results but can also show “that you can get meaningless junk out of asking people questions” (Pullum 2007: 38-39).

Pullum instead proposes a methodology that is rooted in the method of reflective equilibrium, from the field of philosophy. This approach involves “working back and forth among our considered judgments...about particular instances” (Daniels 2003) rather than reliance on a single source of data. Furthermore,

The key idea underlying this view of justification is that we "test" various parts of our system of beliefs against the other beliefs we hold, looking for ways in which some of these beliefs support others, seeking coherence among the widest set of beliefs, and revising and refining them at all levels when challenges to some arise from others. (Daniels 2003)

The end product may range from possible modification of already-held beliefs to the creation of completely new ones.

Reflective equilibrium can be realized in linguistics through consultation with many and varied sources. The intuition of the linguist, both as a researcher and as a language user, remains a vital element, as it is the linguist who ultimately decides the phenomena to be studied and who evaluates and interprets the data. The use of corpora serves as a valuable supplement to intuition because it lessens the anecdotal nature of linguistic research by providing a systematic collection of material from known origin rather than a subjective selection of isolated illustrative sentences (Aarts 2007: 64-66, Fillmore 2007, Sinclair 2007: 419). Other potentially valuable sources include the information found in dictionaries, grammar books, and the opinions of other native speakers. Huddleston and Pullum (2002: 11) explain, “We alternate between the different sources and cross-check them against each

other, since intuitions can be misleading and texts can contain errors.” They add that although their claims are based on evidence, “[i]ssues of interpretation often arise.” Consequently, there is not necessarily any attainable absolute truth that will resolve the linguistic matters that might be raised. This general philosophy, with its multifaceted approach to data, underlies the methods used in the present study, particularly when it comes to the qualitative investigation of the novel metaphors in chapter 6.

3.4 Procedures of metaphor identification

Any investigation of metaphor in discourse requires a process of metaphor identification, yet, perhaps surprisingly, this area proves problematic because there have been no established procedures. Very often, researchers simply “avoid problems by constructing their own metaphors or by choosing examples that are indisputably figurative” (Cameron 2003: 58). If researchers choose to identify metaphors in discourse rather than rely on intuitively derived data, however, then two related challenges must be faced: the identification and the extraction of linguistic metaphors from texts.

The problem of extraction may be either solved manually or with the help of automation. Manual retrieval necessarily limits the size of the corpus which may reasonably be processed, and therefore many researchers have turned towards automation for a practical solution. Some more or less fully automated extraction programs are sometimes used. For instance, Koller et al. report on their experiences with automatic semantic annotation software as a means of analyzing metaphor in corpora of different genres (Koller et al. 2008).³⁵ More common, however, is the use of concordancing tools to retrieve data. In general, search terms from source or target domains are selected for investigation. Another possibility is to search for metaphorical flags such as *like* (for simile), *so to speak*, *kind of*, etc. (Goatly 1997) although because such markers signal more than just metaphor, such searches yield a wide variety of language phenomena. Source domain terms can be chosen on the basis of lists created through previous research, or on the basis of intuition or particular interest. One disadvantage with this means of selection is that knowledge of relevant source terms and possible conceptual metaphors is required in advance (see Deignan 2005: 92-94, Deignan 2009, Stefanowitsch 2006a, Wikberg 2008 for overviews of various methods for extraction of metaphors).

³⁵ In addition, the Tony Berber Sardinha’s Metaphor Candidate Identifier, available as part of the Corpus Analysis Toolkit, provides an automatic online program to identify metaphors in either English or Portuguese (<http://corpuslg.org/tools/>).

Searches for target domain lexis have the potential of remedying this problem, something Stefanowitsch maintains with his proposed method called the Metaphor Pattern Analysis (MPA). By this method, one first identifies key words from a target domain (through frequency analysis, for example), then extracts concordances which include those words from a corpus. The retrieved concordances which consist of metaphorical expressions are then grouped into various categories depending on their underlying conceptual metaphors. Stefanowitsch claims that this method has the potential of revealing the complete inventory of mappings which occur for the given target domain, despite only identifying one subset of metaphorical expression, that is, those with an explicit topic. Moreover, because the topic is explicit, there can be no doubt as to which target domain is involved. He also maintains – among other things – that MPA is more thorough than the traditional method of introspection for identifying data, and more effective than any manual search of corpora, which must necessarily be limited in scale. One obvious disadvantage of MPA, however, is a clear consequence of its reliance on the key word(s) from the target domain. As Stefanowitsch acknowledges, those metaphorical expressions which do not contain explicit topics would not be identified by this method. While for his purposes this poses no serious problem, another identification procedure is required if one wishes to identify all linguistic metaphors in a corpus (Stefanowitsch 2006c).

The process of extraction is separate from the process of metaphor identification. A method is necessary to determine whether items extracted from a corpus as possibly metaphorical actually are metaphors. Such identification is usually carried out unilaterally, i.e. the researcher examines the text and unilaterally decides what is metaphorical. Accuracy is sometimes improved through the use of intra-rater procedures, involving repeated checking of the data (Cameron 2003: 63). The main objection to this particular method is its subjectivity; researchers seldom completely agree with one another when identifying metaphor. Intuition, even so-called informed intuition, is simply not a replicable process and the validity of any results derived on the basis of such an identification system is questionable. A second common method involves inter-rater procedures, where disinterested third parties identify metaphors. The various results of the raters are then compared to produce a measure of reliability; an agreement rate of around 75% usually judged acceptable (Cameron 2003: 63-64). This method, however, is met by similar objections revolving around subjectivity. Specifically, different people may apply different definitions of metaphor, depending upon their own background and views of metaphor, together with any priming they may have received before the identification task. Specialists who are

especially attuned to metaphor, for instance, tend to be hypersensitive to the phenomenon and thus identify more metaphors than the layman. Moreover, overexposure to a text which happens when a researcher pores over it, for example, generally leads to the identification of more metaphors (Low 1999: 49-55).

According to Gibbs, one of the most important criteria for future research into metaphor is the need to be clear about the criteria and procedures used for metaphor identification (Gibbs 2006, see also Low and Todd 2006). Too often, accounts of various methods of metaphor extraction from texts concentrate on the means by which the concordance lines are generated, but offer few to no details concerning criteria for decisions about metaphoricity of those generated instantiations. Yet the reporting of explicit decisions regarding possible areas of contention is essential both for replication and comparison of findings with other studies. Such areas include treatment of technical language, metonymy, delexicalized verbs, prepositions and similes, as well as the identification of dead metaphors (see Cameron 2003: 65-75). This study therefore employs the newly-developed Metaphor Identification Procedure (MIP), which relies on manual extraction of metaphors and presents express guidelines for their identification. It is intended as a practical, systematic, and reliable method for identifying metaphorically used words in discourse and its guidelines were developed with the goal of increasing the validity and reliability of claims about metaphoricity by eliminating much of the inconsistency which all too often is a hallmark of metaphor identification. MIP was developed through collaboration by the Pragglejaz Group of international researchers (first referred to on page 6). It was later the initial focus of two research programs at the VU University Amsterdam, one involving British English and the other involving Dutch. Their practical experience with an extensive application of MIP led to refinement and alteration of the procedure, subsequently dubbed MIPVU to differentiate it from MIP (see Pragglejaz Group 2007). As stated in section 1.1, a secondary goal of the present investigation is to trial MIP and its effectiveness when applied by a single researcher to novice language. Hence, further details concerning MIP and metaphor identification are provided in chapter 4, which includes an explanation and critique of the procedure.

3.5 Categorization of metaphors

All identified metaphorically used lexical units in the NICLE and LOCNESS corpora were classified according to their degree of conventionality to be able to compare and contrast frequencies of metaphor types found in the texts. Müller's dual system for categorization of

metaphoricity is relevant here. As explained in section 2.4.4, she advocates a threefold linguistic categorization of metaphoricity ranging from *historical* to *entrenched* to *novel*, together with a dynamic scale of metaphoricity from *sleeping* to *waking*, which accounts for varying degrees of consciousness of metaphor. The latter classification, a measure of the activation of metaphorical processing on the part of the individual language user, is not the focus of this study. Although such issues are touched upon in chapters 6 and 7 because they are in many ways integral to the concept of metaphor, this study relies on a linguistic categorization of metaphor to distinguish between degrees of metaphorical conventionality. Such categorization dovetails neatly with MIP, a system which allows for the identification of linguistic metaphors only.

Historical metaphors, however, are not identified in this study because they are not identified as metaphorically used when following MIP, a procedure concerned with metaphors in contemporary language. MIP marks “as metaphorical any word that has an active metaphorical basis, in the sense of there being a widespread, knowable, comparison and contrast between that word’s contextual and basic meanings” (Pragglejaz Group 2007: 30). By contrast, the original basic senses of historical metaphors have fallen by the wayside, so that their contemporary basic senses have, in essence, shifted to meanings that once were only figurative extensions. The word *aloof*, for instance, was originally a nautical term referring to physical distance, but now retains only a single sense relating to emotional distance. This latter sense has, in effect, become the basic sense against which to measure contextual meaning for possible metaphor. In other words, historical metaphors are metaphorical in origin, but not in contemporary usage.

Novel metaphors are identified following the spirit of Deignan’s recommendations for corpus-based classification of metaphor conventionality. She recommends using corpus frequencies as a rough guide, defining innovative usage as “any sense of a word that is found less than once in every thousand citations of a word” (Deignan 2005: 40). Following her suggestions to the letter, however, would involve the extremely time-consuming process of checking concordances of the lexical unit under investigation in corpora for the purpose of uncovering the frequency with which that term appears in context identical to that of the student text. The underlying objective for Deignan’s corpus-based procedure, however, is the determination of whether a particular usage meets the basic criterion of metaphorical innovation, namely that it is “not inferable from the standard lexicon” (Black 1993: 23). The implication is that contemporary dictionaries can be used as a tool here as well. Steen explains how “[d]ictionaries use certain cut-off points for including specific patterns of

usage as conventionalized enough...[so that] less conventionalized usage by definition falls outside [their] scope” (Steen 2007: 100). As a consequence, linguistic metaphors are typically categorized as novel when the contextual sense does not match any sense entry in standard dictionaries of English for the lexeme under investigation. Such lack of codification provides a general indication that the use is innovative on the level of the linguistic system.

Entrenched metaphors are categorized as such also following a modified version of Deignan’s (2005) method for corpus-based classification. Her method, however, provides a means for dividing the category of entrenched metaphors into component constituents of *dead* and *conventional* metaphors. The distinction between the two metaphor types lies in the dependence on a core sense:

[W]here a literal sense of a word is perceived as more core than an established metaphorical sense, the second sense is regarded as a conventional metaphor. Where there does not seem to be such a relationship of coreness and dependency between a metaphor and its literal counterpart, the metaphor is regarded as dead. (Deignan 2005: 42)

Metaphors are thus categorized as conventional or dead through semantic analysis of the domains involved. More specifically, if the source domain is concrete and the target domain abstract, then the lexical unit is conventional, following Deignan’s reasoning that a concrete domain is more salient than an abstract one so that interpretation of the abstract sense depends on knowledge of the concrete sense. Dead metaphors, by contrast, are indicated by concrete to concrete mappings, as both domains are perceived as equally core and knowledge of one domain is not necessary for knowledge of the other.³⁶ Because entrenched metaphors by definition must be conventionalized, lexicalization in standard dictionaries provides an additional criterion for dead and conventional metaphors. An overview of my basic categorization procedure is presented in Table 1.

In brief, metaphors are basically divided into those that are *novel* in their degree of conventionality and those that are not. The non-novel metaphors are called *entrenched*, following Müller. Novel metaphors are transparent but not conventionalized (as evidenced through codification in standard dictionaries), whereas entrenched metaphors are both transparent and conventionalized. These entrenched metaphors, in turn, are further divided into the sub-categories of *dead* and *conventional*, which are distinguished from one another through semantic analysis of the nature of source and target domains, following Deignan.

³⁶ Deignan adds two exceptions to this distinction between dead and conventional metaphors: 1) all embodied metaphors involving a mapping from body parts to other domains (e.g. *the heart of a city*) are conventional, as are 2) evaluative metaphors, common in animal metaphors used to describe humans (e.g. *she’s a little monkey*) (Deignan 2005: 46).

Such a subdivision, readily accomplished given Deignan’s procedural suggestions, offers an additional means by which to gauge possible similarities and differences in the metaphor in the two corpora.

Table 1: Metaphor typology and categorization procedure

Metaphor type		Categorization procedure
Novel		<ul style="list-style-type: none"> ❖ Sense not codified in standard dictionaries of general English ❖ Additional considerations (see section 3.6): <ul style="list-style-type: none"> ➤ Few to no similar concordances in BNC ➤ Relatively rare in WebCorp
Entrenched	Conventional	<ul style="list-style-type: none"> ❖ Codified sense in standard dictionaries of general English ❖ Semantic analysis <ul style="list-style-type: none"> ➤ Source domain = Concrete ➤ Target domain = Abstract
	Dead	<ul style="list-style-type: none"> ❖ Codified sense in standard dictionaries of general English ❖ Semantic analysis <ul style="list-style-type: none"> ➤ Source domain = Concrete ➤ Target domain = Concrete

3.5.1 Abstract versus concrete

Categorization of metaphors as either dead or conventional hinges on the identification of target and source domains as either concrete or abstract. Moreover, this same distinction often constitutes the deciding factor in determining whether a lexical unit is metaphorically used. For instance, if one *accepts an award or bribes*, then the verb *accept* is non-metaphorical because the basic meaning is dictionary and entry number MED1:³⁷ “to take something [concrete] that someone gives you.” The restriction to concrete entities is not explicitly mentioned in the dictionary definition. It is, however, implied through the choice of illustrative sentences that the instantiations of the basic sense of *accept* collocate with concrete entities. As such illustrative sentences are carefully selected as a means by which to represent typical use, they are taken into consideration in determination of the basic sense of a lexical unit.³⁸ With respect to the particular case of *accept*, one assumption is that said award/bribe is concrete (e.g. money), rather than abstract (e.g. satisfaction). If, by contrast, one *accepts an explanation or a recommendation*, then MIP would identify *accept* as metaphorically used because what is being ‘accepted’ is not concrete. This mapping from

³⁷ *MED* refers to the second edition of the Macmillan English Dictionary for Advanced Users. *LM* refers to the Longman Dictionary of Contemporary English. The number following the dictionary abbreviation identifies the particular sense in the entry to which reference is made. For instance, the definition quoted here is the first sense listed in Macmillan’s entry for the verb *accept*. Choice of dictionaries is discussed in further detail in section 4.7. The MIP practice adopted here for reference to dictionary entries is identification by their dictionary code and entry number i.e. MED1, LM5a, OED12, etc.

³⁸ This matter is further discussed in chapter 4, especially in section 4.7.1.

the concrete to the abstract serves to sufficiently differentiate the contextual meaning from the basic meaning of the verb. The abstract/concrete taxonomy seems intuitive and indeed is often straightforward, with the feature of concrete “at the head of a hierarchy of dependent systems representing what might be called ‘the material universe’” (Leech 1969: 103).

In some cases, however, the dividing line between the abstract and concrete is not clear. Sometimes sheer salience seems to effect judgement about the concrete/abstract division. For instance, Lowie and Verspoor explain that their study involves only those prepositions “used in their most literal, concrete senses” of place, direction, possession, beneficiary, and time (Lowie and Verspoor 2001: 79). Faarlund et al. would concur with the evaluation of the time domain as concrete (Faarlund et al. 1997: 417). They explain how one important function of prepositions is the localization of objects and events in space and time, a function they contrast with those meanings which are less clear because of their abstract senses. Yet time is the domain which cognitive linguists – implicitly or explicitly – perhaps most frequently refer to as an example of an abstract (or “more abstract”) domain (for example, see Taylor 2002: 491). The fact that time is such a fundamental concept acquired early in life and frequently referred to, i.e. its salience, can explain the (mis)perception of time as a concrete concept.

Langacker, by contrast, avoids this concrete/abstract dichotomy by instead postulating a division between *basic* and *non-basic* domains. Basic domains are irreducible in the sense that they cannot be further divided into component conceptualizations, and are best thought of as “realms of experiential potential” (Langacker 2008: 44-45), perhaps explaining their high degree of salience. Examples include time, space, temperature, taste, smell, and color space (“the range of colors we are capable of experiencing”) (Langacker 2008: 44). Non-basic domains, which are more numerous than basic domains, can be understood in terms of other concepts. The color concept “RED” is non-basic, for instance, because it is understood in terms of color space. Langacker’s other examples of non-basic domains include “immediate sensory, emotive, and/or motor/kinaesthetic experience...as well as abstracted products of intellectual operations” (Langacker 2008: 45) He stresses, however, that many non-basic concepts relate to physical circumstances, so “non-basic” is not synonymous with the term “abstract” used in earlier works. This still leaves us, however, with the problem of definition of concreteness and abstractness.

Grady discusses “the slippery nature of the term” *abstract* in his dissertation on primary metaphors (Grady 1997: Chap 1, p 28). He maintains that a commonly-held view is that abstract concepts

are abstract in the sense of being higher-order intellectual constructs, less directly experienced than source concepts. Given such an understanding, target concepts would presumably be the products of relatively sophisticated powers of invention or analysis, might for this reason be inaccessible to children, and so forth. (Grady 1997: Chap 5, p 21)

By this view, concepts such as *happiness* and *similarity* would not be considered abstract because they are easily accessible elements which are basic to our cognition, unlike for example, complicated legal and moral concepts. Leech, however, notes that concepts such as *happiness* are traditionally regarded as abstract (Leech 1969: 103).

Grady prefers to define abstract as those concepts which lack image content, by which he means the cognitive representation of experiences which are tied to direct physical sensation or perception, to our bodies and the environment around us. Image content is thus related to bodily sensory and sense input in any modality. They “have obvious physical referents, either in properties of the physical world or in sensations we experience,” whether those sensations be visual, auditory, tactile, etc. (Grady: Chap 5, p 8). Following this definition, *happiness* and *similarity* are indeed abstract, because they involve responses to our direct perceptions rather than those perceptions themselves, unlike our perceptions of *brightness* or *sweetness*, for example. Abstract concepts are thus “less strongly associated with specific sensory experiences” (Grady 1997: Chap 1, p 28). The idea of being *less strongly associated*, however, introduces an element of individual evaluation into the determination of abstract or concrete. How weak does this association have to be, and how is its strength to be judged?

Danesi also explicitly tackles the question of abstract and concrete by offering working definitions derived from the idea of concept formation in both philosophy and psychology, whereby the term *concept* simply refers to a classification strategy. Although he concedes that the debate about concrete concepts “is an ancient one and still largely unresolved” (Danesi 2001: 136), he does nevertheless offer explicit definitions, maintaining that “a *concrete concept* is one that is demonstrable in a direct way, whereas an *abstract concept* is one that cannot be demonstrated in a physical way or observed directly (Danesi 2001: 135, italics in the original). This is a seemingly simple distinction – a *table* is concrete, *hatred* is abstract. Concrete concepts refer to physically perceivable things whereas abstract concepts refer to notions such as emotions and ideas (Danesi 2004: 401-402).

He expands on these simple definitions by explaining that “concrete concepts” have “concrete referents” which in turn belong to particular “concrete conceptual domains.” Similar to Langacker, Danesi too brings in the example of specific colors and color in

general. For instance, the concrete referent for a color gradation between certain specified wavelengths is *blue*. *Blue*, together with other similar concrete referents such as *red* and *yellow* comprise the concrete conceptual domain of *color*. He specifies that such particular concrete referents are not necessarily universal, however, as different cultures for example divide color categories in different ways. The concept of *color*, in turn, is a “unitary concrete concept” which is directly experienced through our senses and emerges before abstract concepts in human development. Danesi also holds that there are other “associative concrete concepts” which are experientially linked with the unitary concrete concepts, an example being *vision* which is possible only in association with the unitary concrete concept of *light*. Such concepts are not abstract because the various links involved come “from experience and thus can be easily demonstrated” (Danesi 2001: 138). Such concrete concepts are thus “associative-by-sense” (Danesi 2004: 402).

Where Danesi’s claims seem to fall short is in his elaboration of the meaning of abstract concepts, which he describes as based on “association-by-inference” rather than “by-sense.” He illustrates this type of association with the word *tail* whose original concrete concept relates to the body part at the rear end of many animals. He shows that this basic sense is extended to other areas of usage: *the tail of that shirt, heads or tails in a coin toss, the tail section of an airplane*. Danesi then claims that “association-by-reference, therefore, can be characterized as a process that involves the utilization of a concrete concept to deliver an abstraction (or a set of abstraction) conceptually” (Danesi 2004: 402), and points out that this cognitive process produces metaphors. As evidenced by his own example, however, metaphors do not always involve abstract concepts. Surely *the tail of a shirt*, for instance, refers to a concrete object, despite being a metaphorical extension of the basic sense relating to the body. Although conceptual metaphors often involve a mapping between concrete and abstract domains, such is not always the case.

For the present study, I disregard the idea of a cline of concreteness suggested by Grady. Instead, I have settled on a binary system whereby an entity is judged either concrete or abstract, rather than deal in degrees of concreteness/abstractness. Concrete entities are defined through the primary quality about which both Grady and Danesi agree, that is, the physical nature of the entity. Two points in this regard prove particularly useful to keep in mind. First, Grady links concreteness to the sensations (visual, auditory, tactile, etc.) which we physically experience. The distinction between the actual sensations and how we perceive those sensations (which may be more salient) is key to the concrete/abstract divide. Second, Danesi details a hierarchy of concreteness from referents to concepts to conceptual

domains, along with the idea of associative concrete concepts linked to those unitary concrete concepts that we experience directly. A word such as *technology* which refers to a particular concrete conceptual domain, for example, therefore refers to a concrete entity, so that the determiner in *this technology* would therefore be judged as not metaphorical.

3.5.2 “Empty” words and metaphor categorization

So-called “empty” words such as articles, determiners, and the like are often disregarded in metaphor studies, most likely due to a perceived “marginal metaphoricity” (to borrow a term from Traugott 1985). Neither the typical language user nor many more linguistically-aware language users are believed to view function words as metaphorically used. Such words are thus often regarded as uninteresting for studies of metaphor because of the ostensible lack of intention behind their use. According to such a view, this presumed lack of metaphorical activation on the individual level results in lack of any metaphoricity – the same type of confusion between the collective level of the language and the individual level of metaphor processing that Müller (2008) observes with respect to discussion concerning the dead/alive dichotomy.

As a compromise, I have chosen to separate the classification of function words from those of lexical words in recognition of the arguably less frequent activation of metaphoricity on the level of the individual in the case of the former. Function words identified as metaphorical through application of MIP have then been classified as either *functional conventional* or *functional novel*, along the same lines as lexical units. This artificial distinction is, however, at times discounted in the discussion of the overall metaphorical conventionality in my data. A fuller account of how the various individual categories of function words have been treated in this study is found in section 4.5.7.

3.6 Determination of motivation for novel metaphor production

The identified and categorized linguistic metaphors are first compared and contrasted in terms of their relative frequencies in the two corpora (see chapter 5). Afterwards, two types of categories of novel metaphor, the lexical metaphors and the prepositions (which comprise the majority of the functional novel metaphors), are further explored to evaluate possible factors leading to their production. According to Granger, “Advanced interlanguage is the result of a very complex interplay of factors” (Granger 2004: 135). Section 3.6.1 explores L1 transfer at length and how this may be identified in texts, while section 3.6.2 gives a brief overview of other possible motivations for the production of novel metaphor. Finally,

section 3.6.3 provides a description of the various resources that have been accessed to ascertain possible motivation.

3.6.1 Language transfer

One possible source of metaphorical language in L2 English is language transfer, “the influence resulting from similarities and differences between the target language and any other language that has been previously (and perhaps imperfectly) acquired” (Odlin 1989: 27). Jarvis and Pavlenko note that an investigation of the influence which knowledge of one language may exert on the knowledge of another may be approached from a broad variety of angles. Transfer may, for example, manifest itself as semantic, morphological, phonological, lateral (from an L2 to an L3), or reverse (from an L2 to an L1), although most studies – including the present one – deal with forward transfer, that is, from an L1 to an L2. Moreover, Jarvis and Pavlenko explain the distinction between linguistic transfer related solely to the forms and structures of the languages involved and conceptual transfer, those “types of transfer that are analyzed in relation to the mental concepts that underlie those forms and structures” (Jarvis and Pavlenko 2008: 61). This point as it relates specifically to metaphor is further elaborated on in section 6.3.2.3.

Linguistic transfer may for example take the form of lexical transfer, where knowledge of L1 words influences production of L2 words, as is the case with infelicitous word choice resulting from the existence of false cognates. Lexical transfer can also result from semantic divergence, as when one L1 word corresponds to two separate L2 words. Further examples of lexical transfer include linguistic simplification, a phenomenon Jarvis and Pavlenko illustrate with instances of preposition omission by Finnish students of English as a consequence of the lack of prepositions in Finnish. Linguistic transfer thus involves the level of the link between L1 and L2 words alone. Conceptual transfer, on the other hand, involves conceptual mapping rather than merely lexical correspondence between L1 and L2 items. In such cases, transfer is motivated by different conceptual structures which are then inappropriately extended from the L1 to the L2. This can result in lexicalized transfer, exemplified by differing conceptual categories leading to various concepts for items such as *bed*, *table*, or *bird*, etc. Conceptual transfer may also result in grammatical transfer, as when different ways of encoding space or time result in the use of inappropriate prepositions in the L2 (Jarvis and Pavlenko 2008: 72-77, 94, 112-122).

Transfer – especially when two languages are perceived as similar – can lead to positive effects, facilitating the production of correct L2 forms. In areas where two languages are dissimilar, however, negative transfer can affect learner writing, leading to

error and/or over- or underproduction of particular linguistic phenomena when compared with NS writing, and is hence also referred to in the literature as “interference” (Odlin 1989: 26, 36-41). Negative transfer is easier to spot, as it leads to linguistic anomalies (e.g. novel metaphor), whereas positive transfer leads to appropriate language (e.g. entrenched metaphors). Valid identification methods are required to distinguish language transfer from other motivations when it comes to the production of novel metaphors. Jarvis and Pavlenko maintain the need for evidence from three areas:

Intragroup homogeneity involves determining the consistency with which a group of speakers performs in the source language with respect to a particular language feature, and examining whether they exhibit a comparable level of consistency in their use of a corresponding feature in the recipient language. **Intergroup heterogeneity** involves examining whether groups of individuals who speak different source languages perform differently in the recipient language. Finally, **crosslinguistic congruity performance** involves comparing language users’ performance in both the source and recipient languages, and determining whether their performance in the recipient language is directly motivated by the language structures and patterns they produce in the same contexts in the source language. (Jarvis and Pavlenko 2008: 47, bold script added)

Evidence for intragroup homogeneity helps establish whether the linguistic phenomenon in question represents a tendency for a particular group of language users – those with the same L1 who are writing in the same L2 – rather than an isolated occurrence. Study of the individual proficiency in the L1 is also relevant here, as this has clear consequences for how well one writes in an L2. Intergroup heterogeneity is established through investigation of how two or more groups with different L1s perform in the target language. The most common means consists either of the comparison of learners of different L1 backgrounds but comparable L2 knowledge or of the comparison between NS and NNS writers. These are equivalent to the two versions of Granger’s CIA methodology, IL vs. IL comparison and IL vs. NL comparison, which inspired the collection of ICLE and LOCNESS (discussed in section 3.3.1). Identification of crosslinguistic congruity performance involves qualitative investigation, by showing precisely which L1 features have contributed to the observed L2 language structures or patterns (Jarvis and Pavlenko 2008: 35-47).

Although Jarvis and Pavlenko recommend the collection of evidence in all three areas, they nevertheless concede that there is a necessary balance between methodological rigor and efficiency. What matters most is the “interpretational validity” of the evidence one gathers. Indeed, they note the existence of only a single study that explicitly incorporates evidence from all three areas, having found that evidence of intragroup homogeneity is the area that is least often discussed in transfer studies. Instead, such homogeneity tends to be taken for granted, based on other sources such as personal experience and informal

observations. Such is the case here, where the protected anonymity of the NICLE participants precludes study of their L1 competence.

In this study, intergroup heterogeneity is explored and established through comparison of the interlanguage of the NICLE writers with the language of the LOCNESS writers. Quantitative comparison reveals statistically significant differences in the use of linguistic metaphor in the texts in the two corpora. These results are presented in chapter 5. Finally, qualitative investigations with an eye towards the establishment of any crosslinguistic congruity performance together with other possible motivations for metaphorical production are carried out for those identified novel metaphors, i.e. those metaphors for which negative transfer may play a role. Here, the deciding factor indicating possible L1 transfer is the degree of linguistic congruence between Norwegian and English. As Nesselhauf (2003: 234) notes, “similarity [is] considered an indication that influence was likely,” even though whether transfer actually took place is impossible to prove unambiguously.

Determination of congruence between languages to substantiate possible L1 influence involves some detective work in the attempt to retrace the lexicographical footprints of the Norwegian students. To avoid the pitfall of reliance on a pure “I-know-it-when-I-see-it” approach (see Jarvis and Pavlenko 2008: 27), a number of outside references have been consulted. For the lexical novel metaphors, these references consist of various dictionaries and corpora. Possible correspondence between novel metaphorical prepositions in L2 English and Norwegian prepositions is determined through translation of the relevant NICLE sentences to Norwegian. Philip, for example, utilizes this type of method in her investigations of Italian English when she translates learner-produced English metaphors into Italian and determines whether there is any corresponding Italian expression to account for the learner language (see Philip 2005, 2006a). Nesselhauf (2003) employs similar methods in her study of collocation production by advanced German learners of English, where she finds that non-congruence between L1 and L2 is one of the most important criteria in the use of collocations.

3.6.2 Additional factors motivating production of novel metaphors

Other factors motivating the production of novel metaphor range from conscious intention (which can also be influenced by the L1, see section 6.3.1.1) to various text or substance level errors, to emulation/copying of the language of others. A typology of the possible motivations of novel metaphor is presented in section 6.3. This typology is, in turn, used as a framework by which to organize the actual instances of novel lexical metaphor identified

in NICLE and LOCNESS. Besides L1 transfer, possible motivations also include deliberate production of novel metaphor, as well as varying intralingual problems leading to the production of what are in effect novel linguistic metaphors (e.g. confusion between “synforms” as in *noticeable/notable* or confusion between sense relations as in *discover/invent*). Possible motivation for the production of the remaining instances of novel lexical metaphor are attributed to other sources such as spelling errors resulting from oversight (e.g. *binder* for *bidder*), confusion of so-called phonetic near-misses (e.g. *facility* for *faculty*), and grammatical confusion (e.g. *essences* for *essence*).

3.6.3 Resources for investigation of novel metaphor

Investigation into the individual instances of novel metaphor requires access to a number of information sources which may shed light on factors related to the innovative use. Although the dictionaries’ reflection of conventional usage provides a reliable measure for distinguishing entrenched metaphors from novel ones, corpus-based investigation sometimes proves instrumental in explaining why a particular term might have been produced. For this, the British National Corpus (3.6.3.1) and the World Wide Web (3.6.3.2), accessed through both the Google search engine and WebCorp, proved valuable resources. Possible L1 transfer of items falling into the lexical word classes was uncovered through consultation of bilingual English-Norwegian dictionaries (3.6.3.3) as well as a corpus of Norwegian L1 writing called the Lexicographical Dano-Norwegian Corpus (3.6.3.4), rather than reliance on intuition alone. Possible L1 transfer of prepositions was determined with the help of translation of the relevant NICLE sentences to Norwegian (3.6.3.5). Online language discussion forums, in particular WordReference (3.6.3.6), were also regularly consulted, and provided valuable information concerning questions language learners raised about certain expressions, together with how forum participants attempted to tease apart meaning to clarify points of doubt. A brief description of these various resources follows.

3.6.3.1 The British National Corpus (BNC)

The British National Corpus comprises approximately 100 million words of British English from samples of roughly 45,000 words apiece. The corpus is mixed, in that samples come from both written (90%) and spoken (10%) discourse. It is a general corpus, not representative of any specific register or genre, and the texts collected are relatively contemporary, with informative texts from 1975 onwards and imaginative texts from 1960 onwards (Burnard 2007). Apart from monitor corpora, the BNC is perhaps the largest balanced corpus of British English, and as such it “contains ample information on the

dominant meanings and usage patterns for the 10,000 words that make up the core of English” (Kilgarriff and Grefenstetter 2003: 336). As a result, the BNC is large enough to aid in the categorization of metaphors by providing evidence for the distinction between novel and conventional metaphors. Sentences from the BNC quoted in this dissertation are immediately followed by their BNC tags indicating text of origin and location within that text.

3.6.3.2 *WebCorp and the World Wide Web as corpus*

The BNC, however, is not always suitable for gathering information on novel metaphorical usage because “[f]or rarer words, rare meanings of common words, and combinations of words, we frequently find no evidence at all” (Kilgarriff and Grefenstetter 2003: 336). Innovative metaphors are by definition rare. Therefore, they do not automatically appear in the BNC, even though they may be in use in the native speaker community. A larger data source can therefore be an asset, and the obvious choice is the Web. It is easily accessible, inexpensive, broad in coverage in terms of both content and text type, constantly updated and expanding, and larger than any finite corpus, in short “a nearly inexhaustible resource” (Fletcher 2004: 191). Especially useful to the linguist is that the Web includes text types, such as chat room talk, not typically included in established static corpora, and includes up-to-date linguistic innovations (Renouf et al. 2007: 4).

There is some debate as to whether the Web can be considered a corpus because unlike standard corpora, the Web has not been collected for any specific purpose, is neither finite nor representative of anything other than itself (Kilgarriff and Grefenstetter 2003: 343). Although the Web undoubtedly includes all text types, they are represented in varying degrees. There is relatively little contemporary fiction and relatively more legal, journalistic, academic and commercial texts (Fletcher 2004: 192, Rundell 2000). More serious objections concern the issues of reproducibility and access. First, because the Web is constantly changing, it is an unstable corpus which means that searches cannot be duplicated by other researchers and the validity of the investigation is affected. The results of Web searches referred to in later chapters of this study are thus not replicable, as any future search of the same strings will return different concordances. Second, the most common means of accessing the Web is via a commercial search engine such as Google, and these are fairly unstable because they often change their indexing and search strategies. Search engines are also geared for information retrieval rather than linguistic research. Their criteria of relevance (for example popularity and topical relevance) do not necessarily coincide with

the criteria of the researcher, nor is search output presented suitable forms. Search results often return web pages with a great deal of “noise,” including fragmentary, poorly formed or repetitive language and duplicate identical documents, thereby requiring effort to comb through results to separate the wheat from the chaff (see Fletcher 2004: 192, Kehoe and Renouf 2002: 1, Kilgarriff and Grefenstetter 2003: 345, Lüdeling et al. 2005: 3-5 of 14). Additionally, web pages are often anonymous. It is not always possible to establish their origin with any certainty and there is no guarantee that English web pages have not been written by non-native speakers whose degree of English language competence is unknown (Fletcher 2004: 192).

To resolve some of the issues related to reliance on search engines, this study employs not only Google but also WebCorp,³⁹ an online set of tools designed to allow access to the Web as a corpus by adding pre-processing and post-processing systems to a Google/Altavista search. WebCorp works by piggybacking on existing search engines, submitting the user’s term and then extracting concordance lines from each URL found by the search engines so that the user no longer has to manually comb through the returned URL sites for the desired term. With WebCorp, it is possible to search for a more linguistically oriented syntax using for example wildcards and/or word filters, and the output is returned in the form of Key Word in Context (KWIC) concordance lines where the key term, the user’s search string, is a one-click link back to the full source text. WebCorp can also organize results such that collocations with key term are highlighted and collocation statistics generated. And most importantly, WebCorp allows searches which are restricted to British and/or American sources, which increases the chances that the retrieved text was written by a native speaker of English (Renouf et al. 2007). Sentences found through Google or WebCorp searches and quoted in this dissertation are identified by the website address where the sentence is located.

3.6.3.3 Bilingual English-Norwegian dictionaries

The most obvious means of checking translation correspondence between English and Norwegian terms and their collocations is consultation of an English-Norwegian dictionary. For this purpose, I referred to two dictionaries available on an online site called *Ordnett*⁴⁰ and owned by *Kunnskapsforlaget*, a leading Norwegian publisher of encyclopedia and dictionaries. The site includes two top-selling Norwegian-English/English-Norwegian

³⁹ <http://www.webcorp.org.uk/>. The exact search strings used are given in the following chapters, whenever relevant. An asterisk (*) denotes a wildcard.

⁴⁰ <http://www.ordnett.no/ordbok.html>.

dictionaries, both popular with students. The smaller of the two is commonly called the *Blå ordbok* [*Blue dictionary*], containing roughly 100,000 entries. The larger of the two is the *Stor ordbok* [*Big dictionary*], containing approximately 219,000 entries.

3.6.3.4 The Corpus for Bokmål Lexicography (LBK)

A second source of information about the Norwegian correspondents of the English terms in question is the Corpus for Bokmål Lexicography, hereafter referred to as the LBK as an abbreviation of its full Norwegian name, *Leksikografisk bokmålskorpus*. This corpus is a collection of L1 Norwegian texts, part of the Oslo Corpus of Tagged Norwegian texts assembled by the Text Laboratory at the University of Oslo. Still under development, the corpus reached 28 million words as of February 2007 and has the ultimate goal of 40 million words. The corpus is specifically designed to be a balanced corpus, collected to follow a precise model based upon research indicating how much of each text type the average reader is likely to encounter. The ultimate target for the corpus is a mixture of fiction (25%), non-fiction (45%), newspapers and periodicals (20%), teletext (5%), as well as some unpublished material (5%).⁴¹ The comparison of a general corpus such as the LBK, which represents several genres, with the single-genre NICLE corpus adds an additional variable (see Ellis and Barkhuizen 2005: 345). This study ideally requires a corpus of argumentative essays written in L1 Norwegian and produced by young adults, but no such corpus exists. As there is no perfect benchmark with which to investigate potential L1 influence in the production of novel metaphors identified in NICLE, the LBK was chosen due to the triple advantages of its size, accessibility to the researcher, and useful search engine. Sentences from the LBK quoted in this dissertation are immediately followed by their LBK tags indicating text of origin and location within that text.

3.6.3.5 Translation

It is difficult to evaluate the best Norwegian correspondent for NICLE prepositions through reference to an established corpus such as the LBK, unlike what is usually possible in the case of lexical items. To establish the probable Norwegian equivalent to the novel metaphorical prepositions I therefore engaged two Norwegian linguists, both of whom speak fluent English and have extensive practical and theoretical experience with language learners, to translate each NICLE sentence which contained a novel metaphorical preposition. This method was inspired by the practice of back-translation, which traditionally refers to the translation of a translation from the target language (in my case,

⁴¹Source: Veiledning i bruk av leksikografisk bokmålskorpus, s.a.

English) back to the source language (Norwegian) and is typically performed as a form of quality assurance in the translation business. It allows the text owner to check the accuracy and readability of a translation (Yahya 2004).

Even though the NICLE texts were written directly in English rather than translated from Norwegian, such translations offer a means of establishing correspondence between the English prepositions in NICLE and Norwegian prepositions. There is an old saying that translation is like a woman: beautiful or else faithful. To avoid the pitfall of remaining faithful to an ostensibly flawed text, the two translators were instructed to work individually and simply write the most likely Norwegian equivalent. They were given a list of the relevant sentences in random order, without any indication on my part of the potentially problematic area. Both linguists were however aware that prepositions constituted the *raison d'être* for these translations, presented in Tables 38 through 46 in the appendix and discussed in chapter 7.

3.6.3.6 Online language forum, WordReference

An additional reference source is the WordReference forums, where members from around the world can post questions and answers about language.⁴² Questions posted indicate whether particular words typically pose problems for writers, and suggested answers sometimes prove illuminating when making judgments about the degree of conventionality of a particular metaphor or when teasing out the fine nuances of semantics and collocation that might contribute to making a specific use novel. The membership is composed of both NS and NNS writers of English. NNS writers identify their L1 and NS contributors identify their particular English dialect. WordReference forums prove especially helpful in determining whether a particular problem or anomaly affects NNS speakers who have an L1 other than Norwegian, allowing me to distinguish between those novel metaphors motivated by Norwegian (classified as L1 transfer) and those motivated by intralingual factors. Intralingual factors are further divided into those which affect NNS speakers in general and are not confined only to Norwegian speakers, those which typically affect both NNS and NS speakers, and (in the case of the LOCNESS texts) those which tend to affect NS speakers only. Various ways in which intralingual factors manifest themselves in texts are discussed in chapter 6. In a sense, online language forums allow for some determination of the degree of possible intergroup heterogeneity.

⁴² <http://www.wordreference.com/>

3.7 Concluding remarks

In a nutshell, the basic procedure in this investigation is to identify and study the linguistic metaphors employed in two sets of comparable texts, one set written by advanced Norwegian learners of English and the other set written by British A-level students. The texts are extracted from two corpora explicitly designed to facilitate Contrastive Interlanguage Analysis, a method which involves the identification and investigation of “factors of ‘foreign-soundingness’ in learner writing” (Granger 1996: 43). Metaphorically used words in each set of texts are identified using the Metaphor Identification Procedure. The metaphors so uncovered are first categorized as dead, conventional, or novel and then compared quantitatively to discover whether there are any differences in the frequencies and types of metaphors produced by the two groups. Results are also interpreted qualitatively through consultation of a Norwegian L1 corpus, bilingual English-Norwegian dictionaries, and/or translations to determine the extent to which the occurrence of innovative metaphors in the Norwegian English texts may plausibly be attributed to L1 transfer. Other potential factors affecting learner language production of novel metaphors are investigated with the help of various other resources, including corpora such as the British National Corpus, the World Wide Web (accessed through either Google or WebCorp), a wide variety of monolingual English language dictionaries, and/or online language discussion forums.

4 The Metaphor Identification Procedure (MIP)

4.1 Introduction

This chapter presents an introduction, explanation, and critique of the Metaphor Identification Procedure (MIP) which was employed for the retrieval and identification of linguistic metaphors in my material. The chapter thus has a dual role. On the one hand, it clarifies part of the methods intrinsic to the present study. In this sense, it is a natural extension and elaboration of chapter 3 which discusses the methods employed in this investigation for everything excluding metaphor identification. On the other hand, this chapter addresses the secondary aim of the study, outlined in section 1.1, by offering an evaluation of MIP, both in general terms and more specifically as a method for identifying metaphor in novice writing. This chapter presents the procedure in some detail, including how and why it was developed and many of its underlying considerations and assumptions, to such an extent that it could serve as a guide for those interested in employing MIP themselves. Such detailed familiarity on the part of readers cannot be presumed, but is necessary to establish a solid foundation for arguments concerning the perceived strengths and weaknesses of the procedure to be put in their proper perspective.

The general structure of this chapter follows a sequence which is inspired by that of the various steps of MIP. First, however, the discussion opens with section 4.2 which recounts the general background which gave rise to the procedure, together with impressions of its launch as seen from an observer's perspective. Questions pertaining to the effectiveness of MIP when applied to novice language in particular are raised here. In addition, the difference between MIP and the expanded procedure of MIPVU is explained, a distinction fundamental to establishing the borders of this study in terms of which linguistic forms of metaphor have – and have not – been identified. Section 4.3 then presents a brief overview of the procedure, immediately followed in section 4.3.1 by an example of MIP in practice, using a sentence from a NICLE text. As explained, while MIP is usually said to constitute only four steps, the third step is a conflation of three separate decisions. In effect, there are thus seven steps which must be followed to identify metaphor. As a consequence, each of the next seven sections, sections 4.4 to 4.10 explores the seven MIP steps in turn. Each section details the overall purpose and justification for the step in question, as well as discusses any particularly important issues raised or problems encountered. Some such problems are the consequence of the general MIP guidelines, whereas others are specific

results of the application of MIP to learner language. Section 4.11 discusses the reliability of the procedure, presenting results from my data. Section 4.12 then offers an overall evaluation, including a summary of perceived drawbacks and advantages. Finally, section 4.13 presents concluding remarks.

4.2 Background

The Sixth International Conference on Researching and Applying Metaphor (RaAM6) was held in April 2006. Present were Professor Gerard Steen and his five doctoral students, all of whom had been working intensely on two research programs at the VU University Amsterdam with a single aim: the development of a reliable method for finding metaphor in natural discourse to take most of the guesswork and individual variation out of metaphor identification. Although several preliminary articles had already been published, no detailed working explanation of their findings or results had been offered (see Steen 1999a, 1999b, Steen 2004, 2005). RaAM6 was to be one of the first conferences where they were to unveil their procedure.

Their work had arisen on the basis of work carried out by the Pragglejaz Group. This group first met in 2000 to discuss a number of papers that seemed to share a common understanding of metaphor, yet none of which detailed an explicit procedure for identification. The concern of this group was how to reach agreement over what counts as metaphor in a piece of discourse, given inherent measurer bias. It was not unthinkable that 10 people could identify metaphorical expressions in the same text, yet wind up with different results. They thus first performed a series of analyses to discover the potential import of a lack of a coherent procedure. In 2002, Steen had reported on the initial reliability studies of inter-analyst agreement in the coding of metaphorical use of the lexical words in five nineteenth century poems. Independent marking of metaphor by four Pragglejaz analysts who had first prepared themselves through three days of theoretical deliberation was then followed by a discussion round where the individuals were given the chance to adjust their initial coding. Given that the four analysts were already expert in various dimensions of metaphor, had several preparatory days together to reach a common understanding, and limited their analysis to the least ambiguous cases of nouns, verbs, adjectives and adverbs, what seems most striking is the lack of reliable statistical agreement that characterized their pre-discussion findings. The subsequent discussion round, however, served to reduce individual bias, thereby contributing to the consequent statistical agreement in metaphor identification. The discussion not only revealed errors and oversights which the

individual analysts immediately acknowledged and corrected, but also more fundamental questions such as how one treats simile when identifying metaphor. Discussion therefore allowed for a consensus about what constitutes metaphor in a text at hand, leading to the conclusion that it should be possible to create explicit instructions enabling independent researchers to identify metaphor in both a reliable and valid way (Steen 2007: 121-124, Steen 2002).

Thanks to the previously published articles together with Steen's leanings towards a certain theatrical flair, anticipation and curiosity among the conference participants was palpable. Steen and his colleagues declined to comment on their work with anything other than cryptic smiles in advance of their panel discussion, entitled "Finding metaphor in natural discourse: Report on applying the Pragglez procedure." By the time the actual presentation rolled around on the final day of the conference, the Dutch researchers were met by an audience whose high expectations were rivaled only by those of the delegates attending a paper on metaphors in wine discourse, where wine samples flowed freely.

The audience for that 2006 presentation consisted of linguists well-versed in various aspects of metaphor, with backgrounds in cognitive linguistics, psycholinguistics, stylistics, neurolinguistics, and applied linguistics. Their reaction to the procedural details was instructive, although most likely not unexpected by Steen et al. given one of their main illustrative sentences *If necessary, you may attack us after this presentation*. The general reaction was not entirely positive. One American metaphorologist, in reacting to the intensive and time-consuming process, went so far as to call the procedure "anal." A common feeling was that in looking primarily at the word level and reducing the identification procedure to more or less routine and mechanical steps, the essence of metaphor was somehow overlooked and lost.

Still, the procedure did offer intriguing possibilities by providing a framework for reliable metaphor identification. That the procedure catered to a definite need among metaphor researchers was confirmed two years later at RaAM's seventh international conference in May 2008, where the term "MIP" (/mɪp/) was bandied about by many researchers as if it already were a well-established procedure. The extent of such supposed familiarity with MIP on the basis of the one 2007 article seemed to surprise even the Dutch researchers, who were there at the conference to present papers on various aspects of MIP, as well as to lead a workshop introducing the hands-on procedure designed to complete the path from linguistic expression to conceptual metaphor, a five-step procedure first written

about in 1999 (Steen 1999a). MIP, as complicated as it is, comprises only the first of the five steps.

It turns out, however, that many researchers were not yet prepared for additional steps and that MIP was still controversial. The majority of questions raised in the workshop about the five-step procedure centered on the crucial first step of MIP, showing that it had either not yet been fully accepted or understood by all. Indeed, although many young researchers purported to have used MIP to identify metaphor, one can justifiably wonder what they actually did, given the degree of controversy and questioning that still surrounds the procedure. Later conferences and articles further confirm a trend towards the adoption of MIP as a tool, to the point of being referred to as the “classic method for this type of work”.⁴³

4.2.1 MIP and novice writing

The focus of metaphor analysis for the Dutch research programs consisted of four different registers, three of which comprised written discourse in the genres of fiction, news and academic texts. The fourth register was comprised of transcripts of spoken conversation. All the English texts had been collected in the BNC Baby. An additional angle of research concerned the application of MIP to a language other than English, and whether MIP could be successfully applied along the same lines as with English texts. For this purpose, a Dutch corpus composed of recent conversation transcripts and news texts was analyzed. The English conversations revolve around varying situations, but many cover everyday small talk. The written texts, however, were produced by professionals in their respective fields (Steen et al. 2006, in press-a).

Using this type of material as their object of analysis, the Dutch research group claimed that they have been able to identify linguistic metaphors in discourse with a high degree of reliability. The question, however, is whether MIP can be applied with equal success to novice writing, that is, to the products of those authors who are not yet adept at the art of writing. Low, for example, has expressed concerns about the determination of the contextual and basic meanings of words in L2 texts, wondering how the reader can judge the contextual meaning, what the basic meaning should be measured against, and the extent to which one can claim that the basic meaning is necessary to interpret the target word (Graham Low, personal communication).

⁴³ This is a direct quotation from a Polish researcher who explored metaphorical language used to describe economic crises in Polish and British newspapers (Sadowski 2009).

The primary material in my project provides a solid basis from which to begin to respond to such concerns, because it deals with two separate types of novice writing. First, the LOCNESS A-level essays are produced by writers who have not yet completed secondary school, and who can thus hardly be expected to have attained a level of proficiency in written English equal to that of those authors responsible for the texts exemplifying the three written genres collected in the BNC Baby and analyzed by the VU researchers. Second, the NICLE essays are written by Norwegian students of English, who therefore face the challenges of mastering the syntax, morphology, and conventions of written discourse in a foreign language, including the possibility of L1 influence in the production of the L2.

4.2.2 MIP and MIPVU

The procedure as presented in 2006 has since been slightly refined and published in a 2007 article by the Pragglejaz Group. The theoretical basis for the procedure is discussed in a subsequent book called “Finding Metaphor in Grammar and Usage” (Steen 2007). In addition, a further book entitled “A method for linguistic metaphor identification: From MIP to MIPVU” is due for publication in mid-2010 (this dissertation refers to a draft of the publication, rather than to the final product). The process is referred to as the *Metaphor Identification Procedure* (or more simply, *MIP*), but is also known as *the Pragglejaz Procedure* or *the Pragglejaz approach to metaphor identification* (or more simply, *Pragglejaz*). A version of MIP is the chief product of the Pragglejaz Group, whereas the refinements of the procedure developed by Steen and his VU research assistants is known as MIPVU (Steen 2008b, 2008c, Steen et al. in press-b).⁴⁴ A large part of MIPVU constitutes an in-depth explication about potential pitfalls and suggested solutions for those researchers intent on using MIP. In this sense, MIPVU offers a more detailed version of MIP than was previously available. Further complicating the matter, note also that the final VU version of MIP and the Pragglejaz version of MIP are not completely identical, even though the terms MIP and Pragglejaz are often employed interchangeably; in particular, their treatment of the

⁴⁴ The five research fellows at the 2006 presentation were Lettie Dorst, Anna Kaal, Tryntje Pasma, Ewa Biernacka, and Irene López-Rodríguez. The last two research fellows left the project prematurely and were replaced by Tina Krennmayr and Berenike Herrmann. These researchers, together with Gerard Steen, are referred to in this dissertation either as the “Dutch research group” or “VU researchers.” As of this writing, the doctoral dissertations of the current five PhD students have not yet been published, but will represent a considerable addition to the publications about MIP. The term “Pragglejaz Group,” by contrast, refers to the ten linguists originally involved in the initial phases of the development of MIP, of whom Steen is one (see also page 4).

importance of word class in the determination of the basic sense differs (see section 4.7, as does the emphasis they place on etymology (see section 4.7.2).

The main difference between MIP and MIPVU is that MIPVU provides for the identification of more linguistic forms of metaphor than does MIP. Application of MIP results in the identification of indirectly-expressed linguistic metaphors only. As Steen explains, “Indirect meaning in usage arises out of a contrast between the contextual meaning of a linguistic form and its more basic meaning, the latter being absent from the actual context but observable in others” (Steen et al. 2006: 285). By way of example, consider the sentence *my love is a rose*. Meaning is gleaned through metaphorical processing by which some of the real or perceived qualities of roses are mapped onto the abstract concept of love, while the basic meaning of *rose* (the flower sense) is not directly present in the context. The distinction between indirectly-expressed and directly-expressed metaphors has discussed in section 2.4.5 in relation to the differences between metaphor and simile.

MIPVU, by contrast, also accommodates the identification of directly-expressed linguistic metaphors. There are three types of such “direct” metaphors: simile, directly-asserted analogy (including allegory), and counterfactual hypotheses. By way of example, Norwegian author Knut Faldbakken uses simile which he then expands into analogy in his description of the writing process. He explains that “writing is like hiking” (a simile). He continues with an intricate analogy where he explains that you cannot really know what the hike will be like until it is completed; you can plan your route, but during the actual hike you might run across a marsh or a moose or any number of surprises which convince you to choose a different trail. Eventually, however, you end up at a finishing point, although it might not be the one you had originally anticipated.⁴⁵ Both Faldbakken’s simile and analogy involve direct language, meaning that the contextual sense of the hiking terminology corresponds to the basic sense. Nevertheless, an underlying conceptual metaphor is clearly activated through the insertion of the domain of hiking as a means of explaining the writing process. Steen illustrates counterfactual hypothesis with the example *If Clinton were the Titanic, the iceberg would sink*, where the direct reference to the Titanic triggers a metaphorical mapping in the minds of the readers (Steen 2008c).

The treatment of simile proved a bone of contention among the members of the Pragglejaz Group during the initial phases of the development of MIP. Some argued that

⁴⁵ Faldbakken described the writing process thus at an event entitled “Bokkveld med Knut Faldbakken og Helene Uri” [Book evening with Knut Faldbakken and Helene Uri], held on October 21, 2009 at the Vang branch of Hamar library, Norway.

simile should be included in a procedure which purports to identify metaphor because of the underlying conceptual mapping involved in processing, whereas others contended that the simile could be excluded from MIP due to its directly-used language (Steen 2005: 304). As Steen explains, this controversy actually involves confusion between the levels of conceptual analysis and linguistic analysis. Although both indirect metaphor and simile depend upon underlying metaphorical mappings on the conceptual level, similes need not contain any metaphorically used words on the linguistic level. Even among those who choose to use MIP, however, acceptance for this differentiation between simile and metaphor is not automatic and may be a source of initial inter-analyst disagreement (see for example Low et al. 2008: 434).

Identification of metaphors in the present study was carried out simultaneously with the refinement of MIP and development of MIPVU, without the benefit of many of the articles and books that have since been published on the procedure. Therefore, the procedure used for this study and commented on here does not correspond to the full version of MIPVU. On the other hand, my methods for metaphor identification constitutes something more than MIP alone, because I have had access to much of the MIPVU work detailing the procedural protocol containing many of the practical guidelines for metaphor identification, under development more or less simultaneously with my identification work. In short, the identification procedure utilized here could be called “MIP Plus” or “MIPVU Minus.” Rather than adding my own shorthand to a field already loaded with abbreviations, however, I have chosen to simply retain the label MIP when referring to the metaphor identification procedure utilized in this study.

4.3 Overview of MIP

Although published elsewhere, it is worthwhile to first present the overall procedure in full and to provide an example of MIP in practice before proceeding to a more thorough discussion revolving around the individual steps. MIP is rather detailed, and a brief initial overview is likely necessary for any reader not yet initiated into the process. Figure 2 presents the procedural outline of MIP in flowchart form. The wording comes directly from the Pragglejaz/VU presentations of MIP (Pragglejaz Group 2007: 3, Steen 2007: 88-89, Steen et al. in press-b). MIP is typically presented as a process involving only four steps, but such a breakdown is deceptive. The first step of reading the entire text to gain a general understanding of the context is uncomplicated, as is the final step of marking the lexical unit in question as either “metaphorical in use” or “not metaphorical in use.” The second step of

determining lexical units is fairly straightforward, although here some complications occasionally arise. The third step, however, is the most complex. The core of the determination process is located in this step, which the Pragglejaz/VU literature breaks into three individual sub-steps, 3a, 3b, and 3c. This last step (3c) is a conflation of what appears in Figure 2 as steps 3c and 3d. I have chosen to illustrate this third step in Figure 2 as a four-fold division because the step actually contains four elements: 3a) determination of the contextual sense, 3b) determination of the basic sense, 3c) deciding whether these two senses differ, and if they differ, then 3d) deciding whether these two sense are related by comparison. If the senses do not differ (3c), or if the senses do differ but are not related through comparison (3d), then the lexical unit is not metaphorical in use. By contrast, if the answers to both steps 3c and 3d are in the affirmative, then the lexical unit is marked as metaphorical in use. In the MIP lexicon, a lexical unit deemed metaphorical in use is called a *metaphorically related word* or *MRW*. By the same token, a word which is not metaphorical in use is called a *non-MRW*. These terms are also incorporated into the present study.

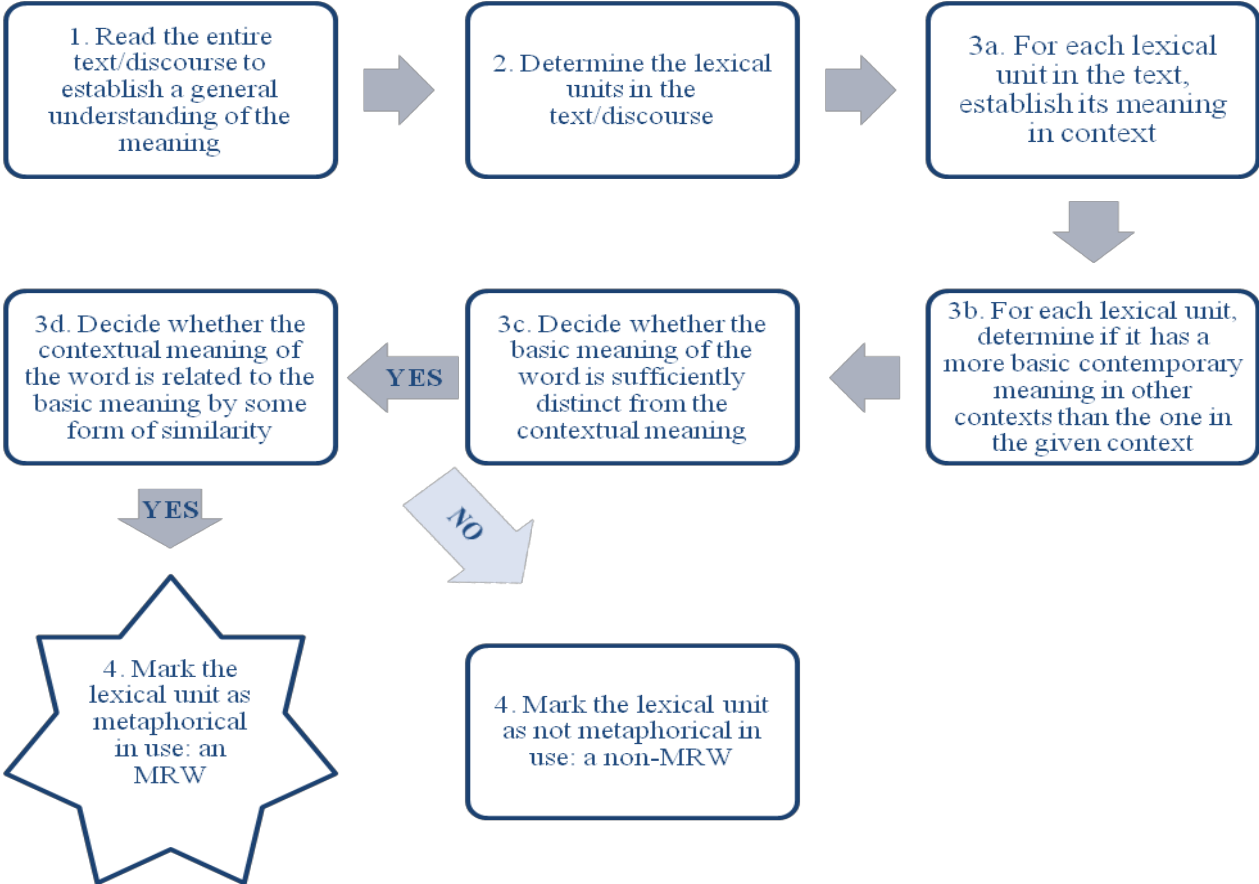


Figure 2: Flowchart of the Metaphor Identification Procedure (MIP)

4.3.1 Example of MIP in practice

Sentence (1) is the opening line of an NICLE essay in my data written in response to the stimulus “Some people say that in our modern world, dominated by science technology and industrialization, there is no longer a place for dreaming and imagination. What is your opinion?”

(1) Our world is on a constant path of change. ICLE-NO-AG-0011.1

The first step in MIP calls for the researcher to read through the entire text, something easily accomplished in this case because the essay is only 523 words long. In the end, the author concludes that our innate powers of creativity and ambition will ensure the survival of dreaming and imagination, despite modern technological progress. The second step in MIP requires the researcher to determine the individual lexical units. In most cases, the lexical unit corresponds to the single word, as proves to be the case here. Other types of lexical units are discussed further on in section 4.5. The remainder of this section is devoted to how Step 3, the heart of MIP, is applied to the individual lexical units in this particular sentence, followed by the final decision called for in Step 4. Although both the Pragglejaz Group and Steen provide similar detailed analysis of some few words to illustrate the procedure (Pragglejaz Group 2007: 3-13, Steen 2007: 89-90), it is nonetheless worthwhile to offer an additional demonstration of MIP here. It is a complicated process to follow, especially upon its introduction. The following analysis shows how many decisions about individual lexical units present their own challenges, along with an explication of my reasoning and resolution of those challenges.

Our

3a. contextual meaning: In this context, the meaning of *our* corresponds to MED1: “belonging to or connected with you and the group that you are a part of, when you are the person speaking or writing.”

3b. basic meaning: The possessive pronoun *our* does not have a more basic meaning.

3c. contextual meaning vs. basic meaning: The contextual and the basic meanings are the same.

4. metaphorically used? No.

world

3a. contextual meaning: In this context, *world* refers to society in general, corresponding to MED2. The possibility is that *world* refers to the actual planet upon which we live is excluded by the immediate context which stipulates that said world is on an abstract path rather than a concrete path, as in an orbit.

3b. basic meaning: The basic meaning is MED1: “the planet that we live on.”

3c. contextual meaning vs. basic meaning: There is a contrast between the two meanings, but whether that difference is due to metaphor or metonymy must be considered. One solution would be to retain this case as WIDLII (when in doubt,

leave it in) to prevent the unwarranted discarding of unclear cases (see Steen 2007: 126). I, however, choose to follow Kövecses (2002: 156), and interpret the contextual meaning of *world* as a metaphorically based metonymy. Places at large (in this case, the planet) are conceptualized as containers for people and by extension society. Thus, a PLACE IS CONTAINER metaphor provides the inspiration for the PLACE FOR INHABITANTS metonymy, a containment metonymy.

4. metaphorically used? No, this is metonymic, although metaphor is involved.

is

The Pragglejaz Group has already published their decision about the metaphoricity of *is* in a context similar to that in this sentence (Pragglejaz Group 2007: 7). I concur with their reasoning. The contextual meaning is the same as the basic meaning, so *is* is not metaphorically used.

on

3a. contextual meaning: In this context, the meaning of *on* is closest to MED1: “touching a surface or an object,” with the crucial distinction that the landmark (in this instance the *path of change*) is abstract, as is thus the “touching.”

3b. basic meaning: The basic meaning of the preposition *on* is MED1: “touching a surface or an object.” This preposition can function as one of path or place (Lindstromberg 1998: 52). The illustrative examples in both MED and LM make clear that the trajector of the preposition in its basic sense is in contact with someone or something concrete, for example, “the floor, desk, cheek, etc.”

3c. contextual meaning vs basic meaning: The contextual meaning contrasts with the basic meaning and can be understood by comparison. An abstract path is understood in terms of a concrete path, an instance of abstract to concrete mapping.

4. metaphorically used? Yes.

a

3a. contextual meaning: In this context, *a* has the grammatical function of narrowing the reference of the following noun phrase to a single member of the class in question.

3b. basic meaning: The indefinite article *a* does not have a more basic meaning.

3c. contextual meaning vs. basic meaning: The contextual meaning is the same as the basic meaning.

4. metaphorically used? No.

constant

3a. contextual meaning: In this context, *constant* refers to something which happens regularly or over a long period of time, corresponding to MED1.

3b. basic meaning: The basic meaning of *constant* is MED3: “loyal to a person or a belief,” which is the most human-oriented meaning. Note also that the Oxford English Dictionary (OED), an etymological dictionary, traces a historical evolution of senses, with the meaning of faithfulness to a person or idea as one of the oldest meanings, first appearing in c1425 (OED2). In the 1500s, this meaning was extended to refer to the invariability or fixedness of things (OED4a), and in the 1600s came to refer to continuity in the domain of time (OED6a,b).

- 3c. contextual meaning vs. basic meaning: The contextual meaning contrasts with the basic meaning, but can be understood in terms of contiguity rather than similarity. One of the fundamental features of loyalty is its duration over time, and this one characteristic has functioned as a focus resulting in an extended sense of the word. A PART FOR WHOLE metonymy is at play here.
4. metaphorically used? No.

path

- 3a. contextual meaning: In this context, *path* refers to something abstract, defined as MED3: “the way that someone takes to achieve something.”
- 3b. basic meaning: The basic meaning of *path* is a physical track that people can follow to get from one place to another, MED1.
- 3c. contextual meaning vs. basic meaning: The contextual meaning contrasts with the basic meaning and the relationship between the two can be viewed in terms of comparison. We can understand the choices we take to achieve something in terms of a physical track on the ground that leads us to actual places.
4. metaphorically used? Yes.

of

- 3a. contextual meaning: In this context, *of* has the grammatical function of indicating a relationship between the two abstract entities evoked by the text. This particular relationship corresponds to MED2a: “used for saying which specific thing belonging to a more general type you are referring to,” as it results in the specification of exactly which path is meant.
- 3b. basic meaning: Lindstromberg notes that the semantics of the preposition *of* are especially complex and rather diffuse. Its meaning has evolved from an easily depictable spatial preposition meaning *off / from* to a non-depictable abstract grammatical preposition which has lost most of its spatial connotations (Lindstromberg 1998: 195). As a consequence, the basic meaning of *of* is difficult to pin down with any degree of conviction. The Praggeljaz Group, for example, claims that the basic meaning of *of* is an abstract, grammatical meaning (Praggeljaz Group 2007: 9). There is, however, a better candidate for its basic meaning, namely its most concrete sense, MED6: “saying what something is part of.” Examination of the sentences chosen to illustrate this entry reveals that both the trajector and landmark linked with this sense are concrete, i.e. “the back of my head, the roof of the church, etc.”
- 3c. contextual meaning vs. basic meaning: The contextual meaning contrasts with the basic meaning and can be understood in terms of comparison. The defining relationship between two abstract entities can be understood in terms of the part-whole relationship between two concrete entities.
4. metaphorically used? Yes.

change

- 3a. contextual meaning: In this context, *change* refers to a situation where the world is becoming different, a meaning corresponding to MED1.
- 3b. basic meaning: The basic meaning of *change* is MED2: “a situation in which one person or thing is replaced by another.” The illustrative sentences in MED and LM

for this sense shows that the basic meaning refers to the transformation of both abstract and concrete entities.

3c. contextual meaning vs. basic meaning: The contextual meaning contrasts with the basic meaning, but the difference can be understood as a matter of degree of difference rather than comparison. A “change” (MED2) is just an extreme “difference” (MED1).

4. metaphorically used? No.

In this particular sentence, there are two main points most likely to stir controversy. The first concerns the dividing line between metaphor and metonymy. This issue has already been raised in section 2.4.6, and is further considered in the discussion concerning whether there is sufficient distinction between basic and contextual meanings, in section 4.8 at a later point in this chapter. The second point concerns the potential for metaphorical meaning of prepositions, such as *on* and *of* in (1). This matter is touched on in section 4.5.7.4 in the present chapter, and then addressed in detail in section 7.3 exploring the novel metaphorical prepositions in NICLE and LOCNESS.

4.4 Step 1: Understanding the general context

- **Read the entire text/discourse to establish a general understanding of the meaning.**

The oft-stated mantra for purchasers of real estate is “location, location, location.” In a similar vein, the golden rule when identifying metaphor is “context, context, context.” Clearly, in order to identify metaphorically used words in context, one must be familiar with that context. Words rarely appear or function in a vacuum, and an appreciation of the overall text adds insight to their interpretation. As the essays in my material varied in length from roughly 500 to 1000 words, this initial step was easy enough to carry out in a practical sense, but I found myself having to resist the temptation of jumping immediately into analysis mode for the individual lexical unit. MIP places enormous emphasis on the word level so one runs the risk of becoming jaded, particularly after a great amount of exposure to the text(s) at hand and practice with the method. The danger is that one remains too focused on the individual lexical units with their immediate context, losing sight of the overall message and nuances of the text; one doesn’t see the wood for the trees.

This step may also prove problematic in terms of time if the researcher wishes to identify metaphors from partial fragments of many long texts. Having to first read many lengthy pieces of discourse to be assured of a firm grasp of the general context may prove impractical in many cases, given the time constraints involved in most projects. Therefore, in some cases, reading the entire text as a first step may be both too ambitious and

unnecessary. A chapter, for example, might suffice, along with having the entire text at one's disposal in case of questions.

4.5 Step 2: Lexical units

- **Determine the lexical units in the text/discourse.**

The main premise of MIP is that the breakdown of the process into individual steps allows the analyst a greater degree of control and explicitness over metaphor identification, which in turn leads to increased reliability of results. It is thus necessary to clearly establish the exact unit of analysis incorporated into the operational definition of metaphor. MIP functions on the level of the individual lexical unit, as opposed to the level of morphemes, phrases, clauses, etc. Consequently, these lexical units must be demarcated in the text under analysis. In most instances, a lexical unit consists of a single word, and hence the terms *lexical unit* and *word* are used fairly interchangeably in this dissertation. Yet the adage that there are no rules without exception applies also here, where multiword units of phrasal verbs, polywords, and compounds are treated as if they were single words because their meanings are non-decomposable (Pragglejaz Group 2007: 26). Subsections 4.5.1 to 4.5.3 specify how these three types of lexical units should be demarcated according to the MIP guidelines, and provide details concerning my experiences and success rates in such determination. Particular consideration is given in this regard to linguistic deviations found in the novice writing which comprises my data. In addition, subsections 4.5.4 to 4.5.6 briefly deal with treatment of proper nouns, mentions, and quotations. Although not multiword units, they are also lexical units which require special treatment in terms of metaphor identification. Finally, section 4.5.7 touches on so-called the “empty” words such as articles, determiners, and delexical verbs to explain how metaphor identification was handled in such cases.

4.5.1 Phrasal verbs

As Goatly states, “Identification of phrasal verbs can be difficult” as a result of challenges in distinguishing multiword verbs from verb + adverb/preposition combinations (Goatly 1997: 104). Phrasal verbs are determined by MIP with the help of the CLAWS part-of-speech tagger (POS tagger), automatic annotation software used by the BNC which assigns a tag to each word in a corpus indicating its word class membership. Following MIP, a particle which is marked by CLAWS as AVP (adverb particle) rather than AV0 (adverb unmarked) or PRP (preposition) denotes a potential phrasal verb. If that same expression is also listed as a phrasal verb in the dictionary, it is treated as one lexical unit for

identification purposes.⁴⁶ Treatment of phrasal verbs as a single lexical unit results from evidence that speakers “mentally lump...verb and particle together as a single word” (Lindstromberg 1998: 252). Important to note is that dictionaries alone are not sufficient in deciding whether a verb is phrasal because their definition of phrasal verbs is much wider than that of MIP, through the inclusion of phrasal verbs, prepositional verbs, and other multiword verbs.

Reliance upon CLAWS POS tagging in the determination of phrasal verbs has two main drawbacks. First, CLAWS may be wrong, despite its claimed 96-97% accuracy rating.⁴⁷ Second, CLAWS is not always able to unambiguously decide word class. In such cases, a particle is marked by two tags with the most likely tag in the first position. No instance of double tagging, however, was evident in my data.

My raw data shows that out of the entire 40,918 analyzed units, CLAWS identified 5570 of them (13.6%) as verbal elements of some sort (V*), including both auxiliary and main verbs. As Table 2 shows, I had identified 165 instances (2.96%) of these 5570 elements as part of a phrasal verb in my initial sweep of the data. Although the majority of these verbs combined with a word labelled by CLAWS as an adverbial particle (AVP) and thereby adhere to the MIP guidelines, it turned out that 22 of the 165 cases were ostensibly linked to other parts of speech, primarily general adverbs (AV0) or prepositions (PRP). In addition to the verbal elements, one noun (NN1) had also been identified as a phrasal verb.

Table 2: Phrasal verbs identified in the initial pass

	Total	NICLE	LOCNESS
V*	165	88	77
AVP	144	76	68
AV0	9	7	2
PRP	10	4	6
Other	3	1	2
NN1	1	0	1

All of the instances not involving AVP were double-checked by investigating the instances in their context. As a result, only two of the cases involving AV0 were retained as phrasal verbs, the remaining cases judged to be instances of verb + adverb. The one phrasal verb tagged as a noun had been correctly classified. CLAWS had mistakenly labelled the expression as a singular common noun due to an error where the student had written how “guidelines...laydown stringent safety procedures for labs” (ICLE-ALEV-0013.8). Of the

⁴⁶ See section 4.7.1 for a discussion about the choice of specific dictionary.

⁴⁷ Source: CLAWS part of speech tagger for English, <http://ucrel.lancs.ac.uk/claws/> (Retrieved on November 12, 2009). A fuller discussion of CLAWS and its accuracy rate for learner language is provided in section 5.1.2.

ten cases with PRP, six were retained as phrasal verbs, although a potential weakness in employing CLAWS to identify phrasal verbs was uncovered and is exemplified in (2).

(2) In the same way, more and more people seek into new religions, such as New Age. ICLE-NO-BE-0019.1

Here, *into* has been classified as a preposition (PRP), indicating that *seek into* is not a phrasal verb. Indeed, the preposition *into* does not lend itself to the formation of phrasal verbs because it cannot be employed in an intransitive way. Rather, a multiword verb such as this one falls into the category of a prepositional verb, denoting that “the preposition cannot be separated from the verb and placed after the following noun phrase” (Hasselgård et al. 1998: 154), as in **more people seek new religions into*. However, the choice of *into* is deviant, a more appropriate option being *out* in the phrasal verb *seek out*. Obviously, CLAWS cannot be expected to have identified a phrasal verb on the basis of a particle which should have been there but is absent, leaving the researcher to decide whether something like *seek into* should be treated as a phrasal verb on the basis of the corrected version.

Further, I then re-examined every word which had been tagged as AVP in my database to reassure myself that I had not made the error of having overlooked numerous phrasal verbs. My initial starting point had been Quirk et al.’s definition of the term ‘adverb particle’ as applying to “two distinct but overlapping categories, that of prepositions and that of spatial adverbs (though such adverbs are not necessarily used with spatial meaning)” but only when they “follow and are closely associated with verbs” (Quirk et al. 1985: 1150). I had identified a total of 144 AVP units as part of phrasal verbs, whereas 212 units had been labelled AVP by CLAWS, a discrepancy that required clarification. It turns out that CLAWS follows different principles in discriminating between adverbs and particles than Quirk et al. According to the BNC2 POS Tagging Guide, the label AV0 is the default tag for adverbs and covers a wide range of adjuncts, conjuncts, and discourse markers. AVP, by contrast, is utilized by CLAWS to label all preposition-like words that lack a complement, and includes not only particles in phrasal verbs but also place adjuncts as in *there were a lot of horses around*. The guide adds a list of the 18 possible AVP units which includes words such as *on*, *out*, *over*, and *along*, and adds that all but *back* may also be used as prepositions, leading one to surmise that it is this double role of preposition or adverb of one and the same word form that results in the AVP classification (Leech and Smith 2000).

As a result of this last check, a few more phrasal verbs came to light. The final results are shown in Table 3. Here an “element” is defined as a lexical unit bordered by

spaces on either side, and therefore individually evaluated for word class by CLAWS. In total, there are 85 phrasal verbs in my Norwegian data, with one additional particle due to one student's having written "rush on and ever on." Thirty-five of these phrasal verbs are metaphorical in use, whereas the remaining 50 are not metaphorical. In LOCNESS, there are 74 phrasal verbs in my material, which includes the phrasal verb mistakenly identified as a noun due to mistaken fusion of verb and particle in *laydown*. Here there are 26 metaphorically used phrasal verbs and 49 which are not metaphorical. There is no statistical significance between the differences in the NICLE and LOCNESS MRW phrasal verb to non-MRW phrasal verb ratio ($\chi^2 = 0.72$ (df=1), $p = 0.3975$).

Table 3: Elements which are part of phrasal verbs after checking

	NICLE	LOCNESS	Total
V*	85	73	158
AVP	79	71	150
AV0	3	0	3
PRP	4	2	6
NN1	0	1	1
TOTAL Elements	171	147	318
TOTAL Phrasal verbs	85	74	159

CLAWS thus proved rather resilient in the tagging of phrasal verbs in my data. Of the non-standard phrasal verbs which are metaphorical in use in my data, the only one not identified by the POS tagger was *dream away*, accounting for the three instances of AV0 marking in the NICLE phrasal verbs. This usage is novel because all three instances (two of which are found in the same essay) are intransitive as in (3), rather than the standard *dream X away* (as in *dream her life away*).

- (3) In the old times, they had no television or computer games to entertain them in the evenings, and so they used their imagination to make new games, to tell each other stories, -or they simply dreamt away. ICLE-NO-AG-0007.1

This usage results from L1 interference, from calquing of the Norwegian intransitive expression *drømme seg bort* [lit: *dream oneself away*] meaning to daydream or lose oneself in one's dreams. Such cases are further discussed in section 6.7.1.1 in the chapter concerning the novel lexical metaphors observed in the two corpora. The adverbial particles in the three remaining novel metaphorical phrasal verbs, *wonder off* and *hang along* from NICLE and *keep [the brain] on* from LOCNESS – also discussed in chapter 6 – were all correctly identified by the CLAWS POS tagger as AVP.

4.5.2 Polywords

Polywords are short, fixed expressions such as *of course*, *on top of*, *even if* and *that is to say* which function as individual lexical items. They are perceived as single words even though they consist of two or more words (Becker 1975, Nattinger and DeCarrico 1992: 38-39). Sinclair contends that the word spaces in such terms are “structurally bogus” and may eventually disappear (as in the words *maybe* and *nevertheless*), because their individual components have “lost their semantic identity” (Sinclair 1991: 110-111). MIP treats polywords as single lexical units and identifies them in accordance with the BNC List of Multiwords and Associated Tags.⁴⁸ This list also includes certain foreign expressions which have entered the English language such as *faux pas* and *tabula rasa*. My study adheres to the BNC list for the most part. The one major exception is my categorization of *a lot of* and *lots of* as polywords on the grounds that they function as quantifiers and are so defined in most dictionaries. Stricter adherence to MIP would call for the identification of *lot/lots* as metaphorical because the basic meaning would have to be based on the entries found for the noun *lot* rather than the adverb *lot*. Indeed, Cameron points out that the etymology of *a lot* can be traced to the meaning of a portion or a share, but argues that its metaphoricity has been dulled over time through familiarity of language users to the more frequent usage, combined with the diminished possibility of using the phrase in other ways. Evolution of language has led to a demetaphorization process (Cameron 2003: 70-71). I have also chosen to classify *a great deal of / great deals of*, *after all*, and *in fact* as polywords despite their exclusion from the BNC listing. Although there are clear advantages to using the BNC list of polywords rather than having to reinvent the wheel and create my own such list, religious devotion to the procedure in this matter seems unnecessarily pedantic.

Given these adjustments, Table 4 shows that the first pass of my material revealed 985 elements initially analyzed as belonging to a polyword, a number adjusted slightly down to 973 during reexamination, representing approximately 1/40 of the roughly 40,000 lexical elements investigated. These elements constitute 424 polywords, 227 in NICLE and 197 in LOCNESS. The VU researchers found no incorrect BNC annotations for polywords and conclude that CLAWS POS tagger is nearly flawless when it comes to polywords (Steen et al. in press-b). Learner language such as that found in NICLE and LOCNESS would therefore seem to present its own challenges for CLAWS when it comes to identification of polyword elements.

⁴⁸ This list is found at <http://www.natcorp.ox.ac.uk/docs/multiwd.htm> (Retrieved April 7, 2010).

Table 4: Polyword elements and lexical units

	Total	NICLE	LOCNESS
Polyword elements after first pass	985	542	443
Polyword elements FINAL count	973	534	439
Polywords FINAL count	424	227	197

First, CLAWS has identification problems when the writers themselves are at fault for spelling polywords as solid lexical units. This occurs three times in my data, i.e. *alot* and *eventhough* in the Norwegian material, and *aswell* in the British writing. CLAWS labels *alot* and *aswell* as singular common nouns, and *eventhough* as the base form of a lexical verb. Other than these three cases, CLAWS mislabels 14 other polywords, 8 in NICLE and 6 in LOCNESS, by assigning their respective alternative tags which are appropriate in occurrences when they do not belong to multiword expressions. By way of example, CLAWS tags *a little* in (4) as a combination of article and adjective (as in *a little girl*) rather than as a general adverb.

(4) This example is a little extreme but it illustrates the point that much scientific research can take on unknown and uncontrollable directions. ICLE-ALEV-0018.8

This same type of mistake is repeated with the polywords *that is*, *thanks to*, *a lot*, *kind of*, *even though*, *due to*, *no doubt* and *at all*. In fact, there are only 4 occurrences of *thanks* in my data, all of which occur as part of the polyword *thanks to*, as in (5).

(5) We should rejoice that we have the luxury of dreaming, thanks to our comfortable and sheltered lives, thanks to all our timesaving technology. ICLE-NO-AG-0017.1

In three of the four instances, including both occurrences cited here, CLAWS incorrectly identifies the polyword as a combination of a plural common noun and preposition. Granted, these 17 total polywords with their 34 combined constituent elements are of negligible significance in an overall corpus of roughly 40,000 elements. Still, 17 out of the total number of 424 identified polywords amounts to an error rate of roughly 4%, certainly worse than the flawless result noted by the VU researchers.

Another point of consideration in investigations of learner writing concerns the MIP routine of not examining polywords for metaphorical meaning once they have been identified. An unspoken presumption with such a practice is that the polyword in question is employed in a conventional way. For example, the contextual meaning of the polyword *of course* would be limited to one of the meanings listed in the dictionary (for example, expressing agreement) and has no metaphorical extension. In practice, such usually proves to be the case. In rare cases, however, a seemingly inappropriate polyword is chosen, which

may have consequences for the classification of metaphor. This indicates that the automatic categorization of all polywords as non-metaphorical is unwarranted, as they too can be used in infelicitous ways.

In my material this proves to be true in the Norwegian material only, as illustrated in (6) which contains the polyword *in front of*:

(6) People chose artificial stimulus in front of creating the experience themselves. ICLE-NO-BE-0009.1

This particular use of *in front of* constitutes a novel metaphorical use of the polyword, and is a result of L1 interference.⁴⁹ This means of expressing preference by metaphorically superimposing X over Y is often expressed in Norwegian by *framfor* [lit: *front-for*]. Indeed, the LBK reveals that *framfor* is far more often used in a metaphorical sense, as in (7), than in its literal sense denoting physical position.

(7) Hun vil gi oss et eventyr framfor et eksistensielt drama. AV06Vi0005

Translation: She wants to give us an adventure instead of an existential drama.

There is a seemingly more transparent Norwegian equivalent, *istedenfor*, for the more appropriate English polyword for this context, *instead of*. Both Norwegian expressions express a preferential relationship, the semantic distinction being quite narrow and, as the preceding example demonstrates, not always evident. The lexeme *framfor* can indicate a slightly greater degree of preference than *istedenfor*, perhaps best realized in English by the preposition *over*, as in (8).

(8) Myndighetene og bistandsorganisasjoner favoriserer byene framfor landdistriktene. AV06Sa9702

Translation: The authorities and aid organizations favor the cities over the rural districts.

The author of the essay in which (6) is found is familiar with the term *instead of*, using it in a conventional fashion at a later point in the same text, seen in (9):

(9) And it is a general truth that many parents place their children in front of the television to watch a video or let them computer games, instead of bothering to talk with them. ICLE-NO-BE-0009.1

This same sentence contains an instantiation of *in front of*, this time used literally and conventionally to denote physical location. The use of *instead of* might therefore have been employed here as a means of vocabulary variation, indicating that the student feels that metaphorical *instead of* and *in front of* are rough synonyms, just as their Norwegian equivalents are.

⁴⁹ Similar cases are discussed in section 6.7.1.3 dealing with the novel lexical metaphors in NICLE and LOCNESS.

In addition to employing polywords in unusual contexts, novice writers also sometimes manipulate established polywords in such a way as to create what can be considered as novel polywords. Such occurrences have only been observed in the NICLE texts. In (10) where *despite* is written in place of *spite*, the core lexeme of the polyword has been modified. In (11), the writer has mistaken one particle (*for*) for another (*of*), whereas in (12), the author has added a superfluous particle, *as*.

(10) But in despite of all this,... ICLE-NO-BE-0009.1

(11) Some of those have urge to escape from reality in search for themselves. ICLE-NO-BE-0019.1

(12) Today because of the technological advancements one can in addition as to before, communicate by email, mobile phones and chat-programs via the Internet... ICLE-NO-BE-0022.1

The absence of such cases in my British texts does of course not guarantee that native speakers never misuse polywords, but it is suggestive. MIP's operational policy of simply discarding identified polywords for metaphorical consideration is perhaps a consequence of its having been developed on the basis of native speaker English, most of which is professional, where polywords would not seem to be used in odd ways. It should nevertheless be stressed that even in the NICLE texts written by L2 learners of English, such occurrences are extremely rare. Polywords are far more often employed in a conventional manner. Moreover, unusual manipulation of polywords does not necessarily involve any implications for the identification of metaphor. Still, a blanket policy of excluding polywords in the identification process is overly hasty, especially when working with NNS texts.

4.5.3 Compounds

Compounds are also treated by MIP as single lexical items because even though the interplay between the individual elements in the compound may involve metaphorical reasoning (e.g. *stokebroker belt*), the compound as a whole represents only one concept in the real world. Compounds come in three varieties: *solid*, *hyphenated*, and *spaced* (also called *open*). Of the three, spaced compounds present the greatest challenge for the demarcation of lexical units.

When a compound is solid (e.g. *snowflake*, *loudspeaker*), then MIP always treats it as one lexical unit provided it is codified in standard dictionaries, presumably because this indicates that what once was clearly a compound has since come to be accepted as a single word in standard English. Similarly, hyphenated compounds listed as such in standard dictionaries (e.g. *grown-up*, *hunter-gatherer*, *so-called*) are also treated as single lexical units. Also disregarded as compounds are those two-part adjectives which adhere to

common spelling practice, even though the particular terms are not lexicalized in dictionaries. Examples include *that vast space of star-filled emptiness* (ICLE-NO-AG-0017.1), *several well-documented experiments* (ICLE-ALEV-0016.8), *a non-materialistic aspect* (ICLE-NO-BE-0002.2) and *pre-menopausal women* (ICLE-ALEV-0030.8). The first two instances follow the common practice of inserting a hyphen in two-part adjectives that end in *-ed* or *-ing*, while the remaining two follow the rule of thumb when dealing with prefixes (Swan 1995: 555).

With regard to solid and hyphenated compounds, I have followed MIP practice when demarcating lexical units. They are thus classified as simple words, single lexical units. If a solid or hyphenated compound in my data is not listed in the dictionary, it is considered a novel construction. My practice has been to label such constructions as compounds in my data, yet analyze them for metaphor based upon the way they appear in dictionaries. For example, *wheel-chair* is analyzed for metaphor through reference to the basic meaning of *wheelchair*, whereas *kitchen-knife* is analyzed for metaphoricity through two separate analyses, based on the basic meanings of both *kitchen* and *knife*.

When it comes to spaced compounds, MIP identifies them as single lexical units based both on a combination of their being codified in the dictionary and their stress patterns. In order to be treated as a single unit of analysis, the first element of the potential compound must have the primary stress on the initial element (e.g. ¹*snail* ₁*mail*, ¹*cash* ₁*crop*, ¹*jet* ₁*lag*). Dictionaries, however, operate with a broader view of what constitutes a compound, one which is less dependent on stress pattern. Thus, many expressions which are treated as single lexical units in the dictionaries are analyzed by MIP as individual lexical items, such as *reality* ¹*TV* and ¹*Third* ₁*World* (Steen et al. 2006, in press-a).

Initially, I attempted to follow MIP when identifying spaced compounds, but gradually revised my practice by adopting the conventions in standard dictionaries. This divergence from MIP was prompted by three factors. First, partially basing classification of compounds on the spelling conventions of being solid, hyphenated or spaced is a dubious practice because spelling of compounds varies a great deal. Pearsall and Hanks, for instance, maintain that there is no airtight rule, although the general trend seems to lean towards an avoidance of hyphens. They observe differences in British and American usage, with British English tending towards spaced compounds (e.g. *air fare*) in many cases where American English prefers solid compounds (e.g. *airfare*) (Pearsall and Hanks 2001: xvi-xvii). Diachronic differences also exist. For example, certain terms where hyphenated spelling was once the norm now appear more frequently as solid compounds (e.g. *week-end* and *e-*

mail are now commonly written as *weekend* and *email*). Swan claims that the present situation is confusing, but that hyphens seem to be disappearing in favor of solid compounds for short lexical units and spaced compounds for longer units (Swan 1995: 533). Hasselgård et al. add, “Because of the irregularity in spelling and stress, there is no clear borderline between compounds and noun phrases with premodifying nouns” (Hasselgård et al. 1998: 97). There is consequently a great deal of individual variation, much of which nevertheless falls within the boundaries of acceptability in standard English.⁵⁰

A second, more important objection is that allowing stress pattern to trump semantic cohesion in the decision over whether two spaced lexical components represent individual lexical units or a single compound results in many counterintuitive decisions. Clearly, the primary stress in many English compounds is indeed placed on the first element, thereby conveniently allowing one to for instance distinguish between a board that is black (*black* ¹*board*) and a blackboard (¹*blackboard*). This is, however, not a hard and fast rule. Following MIP, for instance, an expression such as ¹*times* ¹*table* should not be considered a compound due to the primary stress on its second element. Yet its dictionary definition shows that it clearly designates one referent in discourse. This seems to run counter to the very justification given for demarcating complex lexical units in the first place: namely, even though such units are composed of more than one lexical unit, they nevertheless represent only one concept in the real world.

My third reason for abandoning the strict MIP definition of compounds is based on practical considerations. Stress marks are included in the physical version of MED, but have not been included in the CD-ROM of its second edition. One can instead listen to the pronunciation of any word at will. Often, however, the primary stress is given just slightly more emphasis than the secondary stress, thus requiring me to look up the term in question in the physical copy of the dictionary rather than rely on the my electronic version. Although apparently a trifling detail, this process actually became a somewhat laborious and unwelcome addition to a procedure already as time-consuming as MIP. Had I generally agreed with the MIP means of identifying compounds, such added work would not have presented an undue burden, but this reservation comes in addition to the others already mentioned. One potential solution for future researchers is to simply adhere to the

⁵⁰ By way of further example, consider Smarty’s tabulation of hyphen usage patterns for compounds such as *web?page*, *tittle?tattle*, and *pre?school* using the Google search engine, where she finds considerable (acceptable) variation (Smarty 2008).

compound classification found in standard dictionaries as a rule of thumb, rather than dealing in second-guessing.

An overview of the numbers of types and tokens of compounds identified in NICLE and LOCNESS, together with the number of individual elements involved is presented in Table 5. Thus, spaced compounds are composed of two or more elements, whereas solid and hyphenated compounds are single elements.

Table 5: Compounds identified in NICLE and LOCNESS

	Total	NICLE	LOCNESS
Elements	354	109	245
Compounds (tokens)	187	64	123
Compounds (types)	117	55	62

An accuracy check of my registration of compounds subsequent to the initial analysis was accomplished through separate scans of all elements which CLAWS has labeled as a noun, adjective or adverb as well as of those elements I had identified as part of a compound. Seven errors I had made were uncovered and corrected: 4 elements which composed one part of a compound (such as *day* in the compound *modern day* (ICLE-ALEV-0001.6) had not been identified as such due to oversight, and 3 cases of the noun *fairytale* had inadvertently been labelled as compounds. The type/token differentiation reveals that although there are more compound tokens in LOCNESS, there is roughly the same number of compound types. In other words, the British writers have repeatedly written the same compounds, rather than employing a greater variety of them. This appears to be the result of topic choice, and is especially noticeable in those essays dealing with the topic of “in vitro fertilization,” where there tends to be frequent repetition of compounds such as *in vitro*, *in vitro fertilization*, *test tube*, and *test-tube baby*.

An important consideration for the registration of compounds in novice writing is indicated by the fact that almost 69% of the identified compound types and 56.5% of compound tokens actually result from diverse errors, rather than being genuine compounds lexicalized in dictionaries or adhering to rules for formation of compound adjectives. James contends that such hyphenation errors fall into the fuzzy zone between spelling and punctuation errors (James 1998: 131). In NICLE, 70.9% of types and 68.8% of tokens are erroneous. In LOCNESS, 67.7% of types are incorrect in some way, but only 50.4% of tokens. Although there is no significant difference between the NICLE and LOCNESS error rates for types of compounds, the difference between the NICLE and LOCNESS token error rate is statistically significant ($\chi^2= 5.77$ (df=1), $p=0.016$). The LOCNESS writers would thus

appear to create fewer mistaken compounds than the NICLE writers, but then employ those few compounds repeatedly. This is borne out by a closer inspection of the actual instantiations of compound tokens, where it can be seen that the 61 tokens of standard spaced compounds in LOCNESS exemplify only 20 types, whereas 20 tokens exemplify 16 types in NICLE.

An overview of the types and number of compounds in NICLE, LOCNESS, and in total is presented in Table 6. Comprehensive lists are found in Table 35 and Table 36 in the appendix, for NICLE and LOCNESS respectively. There are two main categories of errors: 1) those which involve items which would otherwise have been viewed as standard, and 2) those which result in the creation of non-standard compounds from elements that should have been written either as one single word or as two separate lexical units.

Table 6: Overview of identified compounds

		Example	NICLE		LOCNESS		Total	
			Type	Token	Type	Token	Type	Token
No error	Standard spaced compounds	primary school	16	20	20	61	36	81
Errors in otherwise standard compound or single lexical units	Lack of hyphen	grown ups	7	8	9	10	16	18
	Fusion	videogames	1	1	3	3	4	4
	Hyphen overinclusion	side-effects	6	7	7	20	13	27
	Split	to day, type writer	12	13	20	25	32	38
Errors resulting in non-standard compounds	Fusion	datagames	3	3	0	0	3	3
	Hyphen overinclusion	wheel-chair	6	8	3	4	9	12
	Combined hyphen and split	TV - programme	3	3	0	0	3	3
Total			54	63	62	123	116	186

There are four different groupings among those instantiations of the first category. First, there may be a lack of hyphen in those compounds which, according to the dictionary, require them. Examples include *long lost*, *time saving*, and *well known* in NICLE and *decision making*, *old fashioned*, and *far fetched* in LOCNESS. Two further types of errors are the inclusion of a needless hyphen (e.g. *fairy-tales*, *post-industrial*, and *human-beings* in NICLE and *side-effects*, *un-inventive*, and *common-place* in LOCNESS) and the compression of a compound into a single word (e.g. *videogames* in NICLE and *testtube* in LOCNESS). James refers to these errors as “overinclusion” and “fusion” respectively. The

fourth grouping consists of those cases where writers include a space between the constituent parts of what should be one word, as in *to day*, *a go*, and *fairy tale* in NICLE and *type writer*, *mis management*, and *far fetched* in LOCNESS. James refers to this type of error as a “split.” In the majority of cases, the split should have been written as a solid. Had these splits been written correctly, they would have been identified as simple words rather than compounds. In three of the LOCNESS cases, the compound requires a hyphen: *well being*, *decision making*, and *test tube baby*. The corrected versions of the first two are hyphenated compounds, which following MIP, would have been classified as a simple word had there been no error. The last, however, is lexicalized in the dictionary as the spaced compound *test-tube baby*. Therefore, the corrected versions of all but one of the splits in my data are single lexical units – words – rather than actual compounds per se. I have nevertheless chosen to classify such cases as compounds to link the individual elements in my database and analyze them for metaphoricity as such, instead of treating their constituent elements separately. Analyzing terms such as *a go* and *inherited* as two separate units based on their two individual elements would have served little purpose.

The second main type of error, which results in the creation of non-standard compounds, is comprised of three separate groupings. First are fusions, such as *datagames* and *dreamvisions* which should have been written as two single words. The second grouping consists of instantiations of hyphen overinclusion between elements that should not have been joined as compounds because they are either two separate words or alternatively, two components/morphemes of a single word. Respective examples include *kitchen-knife* and *wheel-chair* from LOCNESS. Unlike the fusions and hyphen overinclusion in the first category (e.g. *videogames* and *science-fiction* respectively), these terms are not codified as compounds in dictionaries. Note that fusions may also constitute nothing more than mechanical misspellings resulting from oversight or carelessness. An exception is *datagames* which appears in the same text as another similar error, *dataprogramming*, which indicates that these individual fusions are not just one-off mistakes. The third grouping of nonstandard compounds in my data comprises those cases which have both a hyphen and a space, e.g. *TV-programme* and *computer-party*. Instantiations of hyphen overinclusion leading to the creation of nonstandard compounds are found in both NICLE and LOCNESS, but cases of fusion and combined hyphen and split are found in NICLE alone.

As previously mentioned, these terms have been analyzed for metaphoricity according the way they appear in the dictionary despite my having demarcated them as

compounds in my data. This seeming incongruity is explained as follows: it seems contrary to the reasoning behind MIP to analyze, for example, *everyday-life* from NICLE as a single unit. By including only individual entries for the two elements, dictionaries indicate that *everyday* and *life* have not become so closely linked as to represent a single concept in the real world. The inclusion of a hyphen on the part on one writer does not change that, and therefore the two elements are separately analyzed for metaphor.

This discussion about demarcation of compounds provides (further) evidence that the rules and practices regarding compounds and punctuation are especially confusing for novice writers, whether they be non-native or native speakers of English. If one is to apply MIP to learner writing, either the definition of compounds needs to be expanded or separate categories need to be created to account for the types of errors described here. The appropriate solution is mainly a matter of utility. There seems to be no real point of creating yet another category of complex lexical unit in a system that is already as detailed as MIP, unless one has a compelling reason for doing so. On the other hand, it can prove problematic and/or time-consuming to reanalyze data after the fact to include extra categories and thereby investigate whether there are interesting patterns to be discovered in this regard.

4.5.4 Proper nouns

Noun phrases with proper nouns are determined by MIP to be single lexical units on the basis of their stress pattern. Those expressions that have their primary stress on the first element (e.g. *Labour Party*) are treated as single lexical units, whereas proper noun phrases with stress on the second element (e.g. *United Kingdom*) are analyzed as individual words (Steen et al. in press-b). I have strayed from MIP by analyzing all proper noun phrases as single lexical units regardless of their stress pattern, on the grounds that they too “[designate] only a single referent in the projected text world, and hence [evoke] one concept” (Steen et al. in press-a), in much the same way as compounds, polywords, and phrasal verbs.

4.5.5 Mentions

Mentions are instances where the writer employs a standard means of referring to a product, work of art, book, etc. For example, in ICLE-ALEV-0004.6, reference is made to the *Amiga* computer. The name *Amiga* was chosen by the designers because it is the Spanish word for a female friend, but although its origins are thus metaphorical through personification, the term in the particular context is not. Mentions can, of course, consist of more than a single

word, exemplified by the titles of novels, e.g. *Pride and Prejudice*. Mentions are never treated as metaphorical in this study.

4.5.6 Quotations

Quotations usually consist of more than word. For the purposes of this project, quotations are marked as such and not treated further for metaphoricity because it is the learner's own language which is of interest rather than that of someone else. Quotations are usually identified by their punctuation, i.e. the use of quotation marks around the particular words.⁵¹ Writers may sometimes, of course, lift key phrases or even sentences from other sources without attribution. Such cases are sometimes difficult to spot and even more difficult to judge. Did the writer merely copy the text, or has he/she internalized the words to such a degree that they have become their own? Due to this latter possibility, suspected unmarked quotations are noted but still analyzed for metaphoricity, the one exception being when the writers have repeated the essay questions verbatim in their texts, a relatively common strategy especially in the NICLE texts. Possible lack of attribution is discussed further in section 6.3.3.

4.5.7 “Empty” words and metaphor identification with MIP

Identification and classification of so-called “content” or lexical words (nouns, adjectives, most adverbs, and most verbs) which are metaphorically used is relatively straightforward and uncontroversial. Perhaps more problematic are function words which are viewed by many as being semantically “empty,” yet are nevertheless analyzed in a method such as MIP where the researcher makes decisions about every word. Included here are articles, pronouns, determiners, conjunctions, auxiliary verbs, prepositions, existential *there*, dummy *it*, the negative *not*, and the infinitive marker *to*. Any analysis involving counting metaphors in texts must make provision for these types of words and treat them consistently thereafter.

4.5.7.1 Auxiliary verbs, conjunctions, dummy it, etc.

Auxiliary verbs (including modals) found in the texts are never categorized as metaphorical, following Deignan's view that they are “probably as near to semantically empty as it is possible to be...[and hence] it is difficult to imagine a case for their ever being metaphors” (Deignan 2005: 50). The same logic holds for existential *there*, dummy *it*, the negative *not*, and the infinitive marker *to*, as well as most conjunctions. The Pragglejazz Group, for instance, specifically state that the infinitive marker (unlike the preposition *to*) has an abstract and schematic meaning with a purely grammatical function (Pragglejazz Group

⁵¹ Quotation marks also sometimes mark scare quotes (see section 6.5.3).

2007: 8); one would be hard-pressed to establish a case for a conventionally metaphorical use of the infinitive marker. Infelicitous use of the infinitive marker in cases where it has been mistaken for the preposition *to*, however, is discussed in section 7.8.2.3. Further exceptions to this general pattern include the conjunction *where* when it refers to MED3: “at a particular point used for asking about or referring to a situation or a point in a process, discussion, story etc” rather than its basic sense related to place, as well as *who* when it refers to non-animate objects, thereby creating the effect of personification.

4.5.7.2 Determiners and pronouns

Determiners and pronouns are seldom categorized as MRWs, there being two principle exceptions. First, in some cases personal and possessive pronouns/determiners which are gender specific are nevertheless employed to refer to inanimate objects (e.g. *she* when referring to a car or ship). These are analyzed as conventional personification, a type of metaphor. Second, the determination of metaphoricity of demonstrative determiners/pronouns follows a basic rule of thumb: if you can point at it, then it’s not metaphorical. The basic meaning of *this/these*, for instance, is defined in one entry with three sub-senses in MED. This definition corresponds to a single conflated entry in the Longman dictionary (LM), reproduced below:

LM4: used to talk about a thing or person that is near you, the thing you are holding, or the place where you are:

These are your gloves, aren't they?
You have to park on this side of the road.
I can't bear the atmosphere in this house much longer.

Contemporary dictionaries of English specifically include a separate definition for this determiner/pronoun which is restricted to those cases when its referent is a concrete entity, with additional sense entries covering cases where the referent is 1) abstract or 2) either abstract or concrete. Accordingly, a demonstrative determiner which collocates with concrete entities or a pronoun which refers to concrete entities has been employed in its basic sense. In those cases where the referent of the determiner/pronoun is abstract, such as *this week* or *these ideas*, then it is identified as an MRW resulting from a concrete to abstract mapping. Two final points concerning determiners are noteworthy. First, instantiations of noun phrases employed in the genitive case (e.g. *the girl next door's cat*, *a bird's nest*, etc.) are analyzed for metaphor by reference to their individual lexical units. Second, articles, which are also characterized by Deignan (2005: 50) as semantically empty, are never categorized as metaphorical.

4.5.7.3 Delexical verbs

Another type of “empty” word which needs to be accounted for in any study dealing with metaphorically used words is delexical verbs such as *give*, *have*, *make*, and *take* in *give an answer*, *have a shower*, *make progress*, and *take a walk*. Such words seem to occupy a fuzzy middle ground between function words and lexical words in that the meaning of the verb is weakened and the meaning of the phrase is determined to a great degree by the noun. Deignan discusses various instances of delexical *make*, showing how the verb takes objects which vary on a scale from concrete to abstract. She claims that the metaphorical mapping from the basic creation/production sense is more difficult to perceive as the object becomes more abstract, and that any investigation involving metaphor identification should clarify which uses of delexical verbs are viewed as metaphorical. In the present study, almost all non-concrete uses of delexical verbs are considered metaphorical on the grounds that they involve a mapping between concrete and abstract domains (Deignan 2005: 51-52). One exception is delexical *do* (e.g. *do a job*) because its basic meaning of MED4: “perform an action, activity, or job” is general enough to include both concrete and abstract actions.

4.5.7.4 Prepositions

Many studies of metaphor disregard prepositions altogether due to controversy over whether they are a valid object of study when it comes to metaphor. Given such disagreement and/or silence on the subject of prepositions and metaphor, it was tempting to ignore them in the present study on the same grounds that Grant and Bauer used to justify excluding phrasal verbs from their study of idioms, namely “they are such a large group...that they merit separate and thorough research of their own” (Grant and Bauer 2004: 39). Such exclusion would, however, have been a pity as one can argue that the metaphorical impact of prepositions may add to the overall message being conveyed:

A writer may write ‘Jean was in love’ simply because that is how you express things in English – we do not say ‘on love’, ‘at love’, ‘within love’, or ‘under love’. However, the idea of being inside a closed container, or being surrounded by fluid, and feeling repressed *may* equally be an important part of the message (Littlemore and Low 2006a: 16).

This matter of metaphoricity and prepositions is discussed at length in chapter 7.

4.6 Step 3a Contextual meaning

- **For each lexical unit in the text, establish its meaning in context, i.e. how it applies to an entity, relation or attribute in the situation evoked by the text (contextual meaning). Take into account what comes before and after the lexical unit.**

Contextual meanings are very often conventional and lexicalized. There are times, however, when contextual meanings are novel, in which case they will not be found in the dictionary

and require more active interpretation on the part of the analyst. For example, consider the use of *dusty* in (13).⁵²

(13) There are lots of small and dusty reasons for this [loving the world]. ICLE-NO-AG-0006.1

In such cases, it may not be possible to pinpoint the contextual meaning with any degree of precision, but it will nonetheless be possible to affirm that the basic and contextual meanings differ.

Further potential problems involved in determination of contextual meaning include insufficient knowledge on the part of the reader to understand the intended meaning. This challenge is more common with respect to, for instance, scientific treatises than with argumentative essays written by A-level students or language learners. Moreover, incomplete utterances present difficulties for metaphor analysis, but this problem tends to occur in spoken rather than written discourse. Determination of contextual meaning can also be problematic in cases where there is simply not enough information to ascertain the writer's intention. In (14), does the "raising" take place in fact or not? Is the head literally bowed or the eyes really lowered? Are the "dreams" experiences while sleeping (the basic sense) or something good hoped for (the metaphorical sense)?

(14) I choose to raise my bowed head and lowered eyes and let my hopes and dreams guide me. ICLE-NO-AG-0006.1

Although the reader may have a gut feeling as to the preferred interpretation, MIP would mark such instances as WIDLII rather than MRW. I, however, have chosen to mark such cases as examples of bridge metaphors, on the basis that the connection between the metaphorical and literal sense is so intimate that both are brought to mind (see section 2.4.2.1 for a definition of bridge metaphor and section 5.3.2.1 for a discussion of the bridge metaphors found in the NICLE and LOCNESS).

4.6.1 Novice language

More problematic for this study is less coherent text which requires a great deal of conjecture and a bit of lateral thinking to work out the intended meaning of each lexical unit, even in cases when the overall idea might be relatively clear. An example is (15), the final line in a British A-level essay:

(15) Therefore, I conclude that although the invention and development of the human computer has kept the brain on, full-time, it use has offloaded it, to a certain extent, into redundancy. ICLE-ALEV-0006.1

⁵² This particular instantiation is cited again as (92) and discussed in detail in section 6.8.

This particular student could very well have intended to create the effect of a grand finale, complete with a somewhat poetic or philosophical tone, but the unusual choice of lexis with *full-time*, *offloaded*, and the non-standard phrasal verb *keep x on* combine to require the reader to actively puzzle out the intended meaning rather than to be able to effortlessly process it.

In addition to lexical mismatches, the British essays in my data also show numerous instances of garbled grammar as well as incorrect spelling and punctuation in even simple syntactic constructions, to a degree seldom matched in the corresponding Norwegian material. Such instances appear to indicate a lower degree of linguistic maturity of the British A-level students as compared to the Norwegian university students, contrary to Lorenz's (1999) contentions regarding a hierarchy of linguistic maturity (discussed on page 54). As an example, consider (16), which contains errors in punctuation, spelling, capitalization, lexical choice and subject-verb concord.

(16) The only function of the brain which computers can rival is the memory. Some of the humans brains functions have been taken over by computer. like accountancy. with the invention of electronic calculators. In fact the whole subject of mathematics has become quicker with the invention of the electronic calculator. but the subject has not changed electronics have only solved a few mathematical puzzles. Most of the theories used today were Hypothesised and proved before the invention of the calculator. ICLE-ALEV-0003.6

In terms of procedural protocol, however, neither cases like (15) nor those like (16) presented significant obstacles in the identification of metaphor. The focus of MIP is the single lexical unit rather than any larger unit. Although an understanding of the general context is always important in the determination of meaning, as underlined by the first step in MIP, there are times when a narrower approach is more helpful. By concentrating solely on an individual word along with those words in its immediate co-text, one is able to determine a contextual meaning. Said meaning may perplex some readers, although it could, alternatively, be viewed in a positive light as confirmation of the infinite human capacity for expression. No adjustment need be made in the determination of the basic meaning of a seemingly incongruent word, as the basic meaning of each lexical unit is always determined with reference to a dictionary (see section 4.7). The key to metaphor identification in such problematic texts is thus to maintain a much narrower focus than usual upon the individual lexical units rather than attempt to keep the entire context in mind, temporarily working with (metaphorical) blinders on.

The Norwegian texts are on the whole more coherent than the British texts. Most do, however, exhibit typical Norwegian language mistakes involving areas such as subject-verb agreement, the distinction between adjectives and adverbs, and the confusion of existential

there with dummy, referential or anticipatory *it* (see Swan and Smith 2001: 21-36). Such errors rarely have any consequence for metaphor identification, except in the cases of the occasional subordinating conjunction (typically *where* or *who*) and prepositions (see chapter 7). Lexical anomalies in the Norwegian material tend to be restricted to a single word in an otherwise readily digestible text, unlike (15) from the British data. An example is the choice of *spectre* in (17).

(17) It is in this huge spectre of merchandise and inventions we find ourselves stuck with things that are not as important as the people that surround us. ICLE-NO-AC-0001.1

Although the use of *spectre* here is very likely the result of confusion with *spectrum*, one can follow the standard MIP practice to identify metaphor. Hence:

3a. contextual meaning: In this context, the meaning of *spectre* corresponds “to the whole range of ideas, qualities, situations etc. that are possible” (which happens to be the first MED entry for *spectrum*).

3b. basic meaning: The basic meaning of *spectre* is MED (literary) “a ghost.”

3c. contextual meaning vs. basic meaning: The contextual meaning contrasts with the basic meaning, and can be understood in terms of some sort of similarity.

4. metaphorically used? Yes.

The potentially problematic moment lies in the contrast of the contextual and basic meanings, evaluated in step 3c. The two meanings are obviously different, but can that difference be attributed to a relationship of similarity? Given a stretch of the imagination, yes, but possible interpretations are many. This contextual definition of *spectre* is not codified in dictionaries, making this use of the word a novel metaphor, rather than a conventional or dead one. Admittedly, the writer probably did not intend to create a novel metaphor, but in terms of metaphorical analysis, the word can nevertheless be perceived and analyzed in such a way. The use of the word *spectre* may, for instance, have the effect of casting a negative glow over the idea of the enormous range of merchandise and inventions. This example and others like it are discussed further in chapter 6 on novel metaphors. The main point here for the purpose of evaluation of the usefulness of MIP for the analysis of learner language is that adherence to the procedure is sufficient for the identification of even unintended metaphors due to seemingly anomalous lexical choice.

4.7 Step 3b: Basic meaning

- **For each lexical unit, determine if it has a more basic contemporary meaning in other contexts than the one in the given context.**

MIP defines the basic sense of a lexical unit as being the most concrete, human-oriented, and precise meaning found in the dictionary within the same word class and grammatical category. Both word class (noun, verb, preposition, conjunction, etc.) and grammatical

category (countable/uncountable, transitive/intransitive/copular, etc.) are considered integral to the meaning of the lexical unit in context, based on the view that the individual components of a language are defined by both their semantics and required syntax, part of the “cognitive topology”⁵³ of the source domain that is preserved in metaphorical mappings. In sum, particular word classes and grammatical categories identify particular concepts and referents, and thus should not be altered when deciding the basic meaning (Steen et al. 2006, in press-a, Steen et al. in press-b).

This decision by the VU researchers concerning the sanctity of word class for the purposes of metaphor identification represents a departure from the Pragglejaz decision to ignore word class (see Pragglejaz Group 2007: 27-28). As an example, Deignan considers the nominal and verbal uses of *squirrel* and concludes that the verbal use is “true metaphor, because the semantic link from this verb to our knowledge of the behavior of literary squirrels...seems unarguable” (Deignan 2006: 110). She therefore believes that the verb *squirrel* falls into a commonsense understanding of metaphor. Moreover, she argues, there are many noun/verb pairs that act in the same way. Goatly also notes that word class can affect metaphoricity and adds that even nuanced syntactical variations such as valency can have ramifications for metaphoricity. He illustrates this point with the verb *stagger* which he explains has a concrete meaning involving physical movement in its intransitive form that shifts to a metaphorical meaning of shocking/surprising in its transitive form (Goatly 1997: 105-106). In any case, following the original Pragglejaz decision with respect to word class, instantiations such the verb *squirrel* would be identified as metaphor. According to the updated version of MIP, however, the verbal use would not automatically be categorized as an MRW. The main justification for this procedural alteration is based on the grounds that MIP investigates metaphor within the morphological structure of the language, with the focus on the reference of the word in context rather than its developmental origins or links (Steen et al. in press-a). The verb *squirrel* has a single meaning captured in the standard lexicon of English, and this is the meaning which serves as the benchmark by which to judge the metaphoricity of a contextual sense. For the purposes of MIP, the historical origins of this word – its links to the noun *squirrel* – are irrelevant.

MIP further argues that the basic meaning must be codified in standard dictionaries of the language because otherwise it could not possibly be basic. Important to emphasize is the point already noted in section 2.4.2 that the basic sense is not necessarily the most

⁵³ This term is borrowed from Lakoff (1990: 54).

frequent nor the dominant sense of the lexical unit. By way of example, consider the verb *undermine*, whose basic sense involves excavation underneath something. Its most frequent and arguably dominant sense, however, is the metaphorical extension of making someone or something less effective.

4.7.1 Role of dictionaries

An inevitable question when employing a system such as MIP is that of which dictionary or dictionaries to employ. Reliance on dictionaries to determine basic senses can be problematic as much faith must be placed in the work of the lexicographers and editors responsible for the development of those works. For many, the very word “dictionary” inspires confidence and is associated with the truth. But, of course, there are many dictionaries on the market and they surely cannot all represent the same truth. For instance, one examination of corresponding listings across dictionaries for the randomly chosen word *shrimp* reveal “entries that are based on no coherent theory of definition at all...inherited from the nineteenth century extremely muddled concepts of meaning and definition” (Harris and Hutton 2007: 129). The entries are varying, each being some sort of amalgamation of ad hoc information from a variety of fields such as marine biology, food, and everyday discourse (Harris and Hutton 2007: 127-129). When taken as a whole, the various entries leave one at a loss as to the essential elements necessary to properly define the term. Such an observation lends some credence to Scriven’s “cluster concept” hypothesis, that most of the general terms in common use have many prototypical conditions, but no necessary ones (see section 2.4.2).

Given that such challenges in determining lucid and valid definitions are coupled with editorial considerations revolving around the practical constraints of time, money and space, choice of dictionary for the purposes of metaphor identification deserves careful consideration. As its primary dictionary for determination of basic senses, MIP uses the Macmillan Dictionary for Advanced Learners (MED), a dictionary based on a fairly recent corpus of contemporary English. In cases of doubt, especially when MED has conflated senses, the corpus-based Longman Dictionary of Contemporary English (LM) is consulted to resolve the question. Contemporary dictionaries such as MED and LM were chosen because MIP is “concerned with what is metaphorical within the text world, not with uses that may have been derived through a metaphorical process at some previous time” (Pragglejaz Group 2007: 16).

There would appear to be four main considerations in choice of dictionary for metaphor identification, regardless of language under investigation: represented variety of

the relevant language, purpose and source of definitions, order of sense entries, and use of illustrative quotes. In the case of MED and LM, both are ESL dictionaries which – not surprisingly – are dictionaries of British English. American dictionary publishers have lagged far behind their British contemporaries in this regard for a variety of reasons, the first learner’s dictionary of American English not having been published until late 2008 (How 2003).⁵⁴ ESL dictionaries are mainly intended for speakers whose L1 is not English, so they therefore have the dual purpose of not only clearly explaining the meanings of lexical units (a goal shared by dictionaries intended for monolingual English speakers) but also enabling readers to correctly use them. They are general dictionaries of contemporary English, rather than historical dictionaries such as the Oxford English Dictionary (OED) or dictionaries intended for specialized fields (e.g. business English, children’s picture dictionaries, etc.). ESL dictionaries place a premium on ease of understanding, sometimes at the sacrifice of precision. The traditional lexicographer’s rule of substitution, whereby the definition should be substitutable for the word in context, has been discarded by ESL dictionaries in favor of a new way of defining words thought to be more helpful to the learning of English, that is, the sentence definition which was first introduced in 1987 (Landau 2001: 164).

Dictionaries such as MED and LM are advertised as being corpus-based, which means that the lexicographers have accessed corpora as a source for new terms and senses, illustrative quotes, and confirmation of previously established meanings. Indeed, varying degrees of copying, with or without acknowledgement, have been the norm throughout the history of lexicography. Such practices were not modified until the development of the citation file system of the OED, whereby carefully collected quotations illustrating different shades of meaning for each term provided the basis for each definition. A balanced corpus can provide many more varieties of context for a lexeme than the traditional citation files, also providing an abundance of information about the usual uses and collocations of a lexeme rather than just the unusual ones that have caught the attention of a reader (Landau 2001: 190-191, 346). Use of such corpora to compile dictionaries also helps lexicographers to more accurately reflect contemporary English in their entries, an important consideration for metaphor identification when using a system such as MIP.

ESL dictionaries list senses of a lexical unit based on frequency, with the most frequent sense foremost, on the presumptions that this listing is the most helpful for the

⁵⁴ Reasons include the large size of the NS domestic market, the “bootstrap” mentality by which publishers are reluctant to cater to special needs of immigrants, and the lack of government funding (unlike in the UK) which makes the cost for the creation by publishing companies of a representative corpus seem prohibitively expensive (How 2003).

learner and that many dictionary users do not read beyond the initial entry (Kipfer 2003: 183, van der Meer 1997: 559-560). When it comes to MIP, frequency-based ordering can lay the foundation for a potential pitfall in determination of basic sense, especially for a neophyte to the procedure. As van der Meer expresses it, “Giving the often more frequent non-literal meaning first creates the wrong impression that this is the basic meaning” (van der Meer 1999: 205). Experience has taught me that when determining the basic sense of a word, it is sometimes necessary to resist the instinct to select that meaning that is perceived as the dominant sense – typically corresponding to the most frequent sense (see section 2.4.2 for further discussion of this point). One should adhere to the stated MIP criteria for the basic sense during this stage of the procedure.

Furthermore, ESL dictionaries carefully select illustrative sentences to provide the reader with examples of the word in context. These display common collocations, connotation, syntax, variety of usage, as well as meaning. Modern ESL dictionaries find such examples in a representative corpus, modifying them when necessary for simplification of lexis. Illustrative citations are critical to the definition, often being the best way of imparting information especially about very common words such as prepositions in a limited amount of space (Landau 2001: 208, van der Meer 1997: 566). In the initial phases of the development of MIP, the Praggeljaz researchers determined the basic meaning of lexical units by concentrating on the definitions alone. It later became apparent that the illustrative quotes prove quite useful in determining the boundaries of the basic meaning. For example, they can indicate whether the basic meaning extends to abstract and concrete senses or whether the abstract sense is in fact a metaphorical extension of a concrete meaning. Illustrative sentences are also useful in determining whether the basic sense applies to people alone, animate entities in general, or both animate and inanimate entities. This type of information is sometimes explicitly included a definition, but is often only indicated implicitly through example, ostensibly due to space restrictions. Such illustrations can thus provide invaluable assistance in determining whether a term in its contextual sense can be considered an instantiation of, for instance, personification, anthropomorphism or reification, or whether the given contextual sense falls within the boundaries of the basic sense.

In practice, the definitions in MED and LM often complement each other by filling out each other and/or supporting each other, although whether the determined basic meanings would dramatically shift had some other corpus-based dictionary been chosen as the standard MIP consulting dictionary has not yet been looked into. Krennmayr writes that

the VU researchers chose MED as the primary dictionary because the original Pragglejaz Group had done so, but that LM could just as well have been chosen (Krennmayr 2008: 104-105). There are also a number of other corpus-based ESL dictionaries of British English that would also present suitable alternatives, such as those published by Oxford and by Cambridge. Further, certain non-ESL, yet still corpus-based, dictionaries could also prove a valuable resource in this regard, such as the Oxford dictionary which organizes entries with the “core” sense first. By this is meant “the meaning accepted by native speakers as the one that is most established as literal and central,” (Pearsall and Hanks 2001: ix), which does not necessarily coincide with either the oldest or the most frequent meaning(s).⁵⁵ Researchers interested in applying MIP to languages other than English would be well advised to first survey the market to learn which dictionaries are available and better enable them to make an informed decision regarding the most appropriate dictionaries.

Consultation of dictionaries in the determination of the basic sense of a lexical unit eliminates the importance of the processing level of the recipients, and also serves as a tool for double-checking decisions. Reliance on the approach to metaphor that MIP advocates allows for an outside norm of reference, removing much of the variation due to individual interpretation and degree of vitality a metaphor might be perceived to have. As Steen explains, “decisions [in dictionaries] about conventionalized meanings have been reached across the complete language, with reference to many patterns of usage, and independently of any particular concerns with decisions about metaphor from a cognitive-linguistic perspective” (Steen 2007: 98).

4.7.2 Abstract to concrete mappings

Prototypical conceptual mappings involve those between a concrete source and abstract target (see Deignan 2005: 43-44). Linguistic manifestations of such mappings are adequately catered for by MIP, which includes the criterion of concreteness as one of the main factors in the determination of the basic sense of a lexical unit. Etymology, by contrast, is given much less weight in MIP due to the emphasis on the contemporary meaning of the word, a departure from the original Pragglejaz philosophy. In Steen et al. 2006, for example, etymology was still an important consideration in the procedure. According to MIP, what matters most for the purposes of identifying MRWs is the various contemporary senses of terms rather than their etymological developments, something the

⁵⁵ As of this writing, this particular dictionary is however not available on CD-ROM. This presents a serious obstacle for its employment in a procedure such as MIP which requires frequent consultation of dictionary entries.

average language users are probably unaware of. Typically, however, the historically older sense of a word is also its most concrete sense, i.e. the two criteria usually coincide.

Nevertheless, the importance of concreteness over origins causes one sometimes to run the risk of counterintuitive conclusions in the case of abstract to concrete mappings. Such mappings are relatively rare, but do exist. Table 7 displays a few such examples, all of which I encountered in the analysis process.

Table 7: Instantiations of abstract to concrete mappings

Lexical Unit	Concrete sense	Abstract sense
<i>bold</i>	MED2 very bright, clear, or strong in colour and therefore easy to notice	MED1 involving a risk MED1a confident and not afraid of people
	OED8a (1678) ‘Standing out to the view, striking to the eye’...	OED1a (a1000) Of persons: Stout-hearted, courageous, daring, fearless...
<i>brief</i>	MED3 not covering much of your body	MED1 lasting only for a short time
	OED3 (1668) Less usually of extent in space: Short, curtailed, limited.	OED1 (ca1325) Of short duration, quickly passing away or ending
<i>dominate</i>	MED3 if an object dominates a place, it is so big or high that it is easy to notice	MED1 to control something or someone, often in a negative way, because you have more power or influence
	OED3 (1833) To ‘command’ as a height	OED1 (1611) To bear rule over, control, sway...to master
<i>fine</i>	MED2 very thin or narrow, not thick or heavy	MED1 if something is fine, it is good enough and acceptable to you
	OED7d (c1400) Very small in bulk or thickness; extremely thin or slender	OED1 (a1300) Of superior quality, choice of its kind

The adjective *fine*, for instance, has a concrete sense relating to the physical properties of something as thin and narrow (MED2) and an abstract sense relating to good quality (MED1). Following MIP procedure, one could argue that the concrete sense of not being thick or heavy has been metaphorically extended to an abstract sense relating to quality, i.e. the perception that thin is good. Yet the OED reveals that the abstract sense of *fine* appeared in the English language approximately 100 years before the concrete sense (OED1 is the earlier abstract sense and OED7d is the later concrete sense that most closely corresponds to MED1 and MED2 respectively). It would therefore be anachronistic to argue that what is in fact an earlier sense is an extension of a sense that has been more recently adopted, especially when there is no question of a historical metaphor whose original physical sense has since become obsolete. Such a discrepancy has also been noted by Panther in his review of Steen’s 2007 book, where he finds that the OED’s earliest attested date of the more concrete ‘war’ sense of *undefensible* is later than the earliest date of the abstract ‘argument’

sense (Panther 2009: 1457). The VU researchers concede the point about the existence of abstract to concrete mappings and that further investigation of their approach in connection to this matter deserves investigation, although they also note that such mappings are not very common. Arguing that most speakers are unaware of the historical origins links between senses, they nevertheless favor embodiment as the deciding factor in such cases (Steen et al. in press-a). My working solution in such instances is, by contrast, to accept the older, abstract sense as basic. The only problem with this decision is lack of consistency, as I only occasionally consulted the OED when something unusual happened to catch my attention. Therefore, I may have overlooked other similar instances.

4.7.3 Folk etymology

A potential solution to this seeming incongruity involving ostensible abstract to concrete mappings lies in the invocation of folk etymology, a strategy on which the VU researchers occasionally rely, with the justification that MIP employs a synchronic rather than diachronic approach. The basic sense of a word is consequently determined to be that meaning which has become so salient that it can be deemed primary for most contemporary speakers. This situation typically occurs when the historically basic sense has fallen out of use, leaving only extended senses behind for contemporary use. An example offered by the VU researchers is the noun *stage*, whose original sense of “a raised floor, platform, building” has fallen out of use. The MIP developers reason that most English speakers may feel that MED2: “the part of a theatre where the actors or musicians perform” is basic, projecting this theatrical sense onto the aspects of time (MED1: “a particular point in time during a process or set of events”) and real-life events (MED3: “the place or situation in which something happens, especially in politics”) (Steen et al. 2006, in press-a).

Although perhaps an appropriate means of dealing with historical metaphors, a problem arises when folk etymology is employed as a blanket justification for decisions about the basic sense of words whose various older meanings remain in contemporary use. By way of example, consider the adjective *bold* in Table 7, whose most concrete sense concerns visual effect, as in *bold colors*. The earliest attestation of this sense, however, appears in the OED almost 700 years after the more abstract sense, involving risk. As a result of the general policy emphasizing concrete meaning – embodiment – even when demonstrably incorrect in terms of historical development, MIP assigns the concrete sense as the basic one and appeals to folk etymology for justification. Indeed, this claim would seem to parallel conceptual metaphor theory which holds that we anchor the primary meaning in the concrete and extend it to more abstract senses.

The obvious fallibility of employing folk etymology as a justification, however, is that any conclusions reached upon that basis can hardly be investigated to determine whether they are indeed justified, without separate studies questioning numerous English speakers to determine the validity of the analyst's decisions. This weakness becomes especially apparent in the case of a word such as *bold*, where the historically oldest sense is judged by learners' dictionaries as appearing more frequently than the more recently developed concrete sense. Frequency is often an indication of saliency as well, such that one may argue that the "risk" sense of *bold*, in addition to being its oldest and most frequent sense, is also its most salient sense – in other words, its dominant sense. It is unlikely that there is any widespread folk etymological reasoning by which general language users intuitively feel that a less salient meaning is basic. As MIP argues, the presumably dominant sense is not necessarily the basic sense in terms of metaphorical mapping. Still, if one is to argue that there actually exists a folk etymological explanation which lies at the root of choosing one sense over another as the basic sense, then that logic should at the very least not fly in the face of common sense. In such instances, there thus seems to be a thin line between "folk etymology" and "intuition," which is out of place in a procedure that purports to take the fuzziness out of metaphor identification. In a similar vein, assigning the most concrete sense as the basic sense in all cases, even when clearly at odds with etymological development and arguably at odds with a common view of the dominant sense of a term, may be seen to undermine the credibility of the procedure.

4.7.4 Homonyms

Sometimes during the course of employing MIP, one comes across an entry for a word that includes subsidiary senses which define two concrete yet widely different entities. An example is the noun *bat*, which MED first defines as the sports equipment and then as the animal. Determination of the basic meaning requires the researcher to ponder the possible links between the two meanings. In this case, however, there is no connection, as *bat* and *bat* are homonyms which share the same form by a quirk of fate rather than through historical development. In such cases, MIP departs from its general rule which downgrades the importance of etymology. Homonyms are treated as the separate words that they are. Their varying meanings are not contrasted with each other, even though the average language user may not be aware of the lack of historical connections between the senses. Learners' dictionaries such as MED and LM conflate homonyms in a single entry with separate subsenses, so I have turned to the OED, with its historical approach to lexicography, to properly distinguish such words. As with instantiations of abstract to

concrete mappings discussed in section 4.7.2, consistency of application in realizing when homonymy might be at play is a challenge. An examination of other learners' dictionaries, however, provides a possible solution. Although the Oxford ESL dictionary adheres to the same policy of homonym conflation as MED and LM, the Cambridge ESL dictionary includes individualized entries for homonyms such that the lack of sense relationship between pairs of homonyms becomes immediately evident.⁵⁶

4.8 Step3c: Sufficient distinction

- **If the lexical unit has a more basic current/contemporary meaning in other contexts than the given context, decide whether the contextual meaning contrasts with the basic meaning** but can be understood in comparison with it.

There must be a distinction between the contextual sense and basic sense for a metaphorical mapping to exist. Sufficient distinctness is usually decided on the basis of MED, where separate, numbered entries are treated as distinct senses. Occasionally, however, MED conflates senses (for example human/animal, abstract/concrete) under the same numbered entry, on the presumption that the two senses are merely two manifestations of one overall meaning. A sense description with such conflation may, however, also be the result of other considerations, such as the need for simplicity and comprehensibility. Therefore, LM is also consulted in such cases to see how it deals with the lexical unit in question. If LM also conflates, then this is accepted as the basic meaning. If LM separates the senses into two distinct numbered entries, they are treated as sufficiently distinct.

4.9 Step 3d: Relation of comparison

- If the lexical unit has a more basic current/contemporary meaning in other contexts than the given context, decide whether the contextual meaning contrasts with the basic meaning **but can be understood in comparison with it.**

Given two separate senses, the relationship between those senses must be ascertained. Metaphorical mappings are displayed by some form of cross-domain similarity, prototypically between concrete and abstract senses. MIP adopts a broad view of similarity, where it “can encompass pre-existing as well as created similarity [...and...] literal or external similarity [or resemblance] as well as relational or proportional similarity (or analogy)” (Steen 2007: 63). This statement entails a number of propositions. First, similarity may actually be created by the metaphorical mapping rather than refer to any pre-existing condition. This explains why apparently contradictory mappings are possible, such as the

⁵⁶ *Cambridge advanced learner's dictionary* 2008, *Oxford advanced learner's dictionary*, 7th edition 2007. Note that although the OALD7 was consulted during the course of this investigation, an eighth edition of the OALD was published in 2010.

idea of marriage as a business partnership (between equals) and marriage as an asymmetrical child-parent relationship. There is no one fixed way of viewing a concept. Further, although similarity may relate to literal substance, it may also result from perception.

In addition to metaphorical mapping, there exist other relationships that may link senses and these must be ruled out for the connection to be judged metaphorical. Besides metaphor, the most common such associations between distinct senses include generalization, specification, and metonymy. An example of specification is the intransitive verb *to cheat*, where the basic sense concerns dishonest behavior, such as on an exam. Both MED and LM, however, include a separate sense entry of the verb which relates to the action of being unfaithful to one's partner. This particular type of cheating is a specification of the broader category of the basic sense, and hence is not metaphorical. Generalization is exemplified by the noun *appeal*, whose basic sense is technical and concerns a formal request to a body of law or other similar authority. A more general extension is included in a distinct sense entry, where the noun is used to refer to other types of urgent requests, such as in charity drives.

Particular decisions involve consideration of the borders of semantic domains and can sometimes be tricky. For instance, the noun *climax* is defined by two sense entries in MED, MED1: "the most exciting or important moment in a story, event, or situation, usually near the end" and MED2: "an orgasm." MED1 is the most frequent and ostensibly the most salient. Here there are two main possibilities. First, MED2 could constitute a metaphorical extension, whereby sex is viewed as a story with its own type of crescendo, i.e. two distinct semantic domains are involved. On the other hand, the "story, event, or situation" included in MED1 encompasses most any experience, including sexual acts. By this reasoning, MED2 is merely a specification of MED1. Consultation with LM sheds no further light on the matter, as here the sense divisions are identical to those in MED, although LM writes the equally broad "experience" in place of MED's "event or situation." Turning thus to the OED, we see that MED1 encodes the original sense of the term which stems from the field of rhetoric, with the earliest instantiation dating from 1589. By contrast, OED dates the physiological sense of *climax* from 1918. As a result of the OED information and the lack of delimitation in the learners' dictionaries as to what sorts of events may have climaxes, I decided to treat MED1 as the basic sense, and MED2 as a specification rather than metaphorical extension.

When it comes to metonymy, the crucial distinction concerns the contrast between similarity and contiguity. According to Steen, the latter criterion is the foundation of metonymy. It involves a reference-point construction of seeing X *via* Y (as opposed to seeing X *as* Y which would entail metaphor), whereby the explicit term provides a point of reference that allows one to better access the implicit target term (Steen 2007: 58). A complicating factor here is that similarity and contiguity are intertwined relationships. As discussed in section 2.4.6, the distinction between metaphor and metonymy is not always clear, because the borderline between domains is fuzzy. Steen explains,

Any set of two conceptual structures can be simultaneously judged as more or less contiguous *as well as* more or less similar. Finding metonymy therefore does not mean that the search for metaphor can be abandoned. (Steen 2007: 59, italics in the original)

One person's metaphor is (sometimes) another person's metonym. For instance, the noun *goal* is defined with two entries in MED, MED1: "something that you hope to achieve" and MED2: "the net or structure that you try to get the ball into in games such as football and basketball." A metaphorical interpretation would treat the more concrete MED2 as the basic meaning, with MED1 being a metaphorical extension, perhaps with the underlying LIFE IS A GAME conceptual metaphor. Alternatively, MED1 could be viewed as the basic sense, where MED2 is analyzed as a metonymic extension, a LOCATION FOR EVENT metonymy. As with the case of *cheat*, this particular question is resolved through consultation of OED. Here, the MED1 sense of achievement is specifically marked as figurative (OED2b).

Interpretations rest partially upon one's inclinations, "a matter of adopting a particular perspective, one where similarity is more relevant than contiguity" (Steen 2007: 60). Metaphor scholars may have an uncanny tendency to spot metaphors and be able to come up with convincing explanations concerning semantic mapping. Other scholars, however, place more emphasis on the metonymical nature of relationships. Kövesces, for instance, discusses several metonyms which many people would consider to be the literal use of the word. Examples include *he* in the sentence *he hit me*, where *he* represents *his fist*, a WHOLE THING FOR PART OF A THING metonymy. Kövesces also discusses various PART-AND-PART metonymies, whereby terms such as *to ski*, *to butcher*, *bite* (noun), and *to tiptoe* are analyzed as metonyms (Kövesces 2002: 143-162). In my study, while I acknowledge the metonymical underpinnings of relationships such as that between seeing and understanding, I have nevertheless chosen to weigh the criterion of similarity more than that of contiguity, thereby allowing for the inclusion of many such cases in my data. At

times, however, when the metaphor/metonym balance seems to tip much more towards the metonymy end of the scale, then the term is nevertheless rejected as an expression of metaphor. Such is the case with the lexeme *world*, discussed on page 87 as part of the example of MIP in practice. In this case, Kövesces' reasoning which posits that *world* is a containment metonym based on a container metaphor is adopted.

4.10 Step 4: Final decision: What has really been identified?

- **If the answers to Steps 3c and 3d are positive, the lexical unit should be marked as metaphorical.**

It is important to keep in mind exactly what the Pragglejaz procedure identifies. Succinctly put, MIP identifies those lexical items which are possibly metaphorical in use, that is, possible linguistic metaphors. Only metaphorically used lexical units are marked, rather than metaphorically derived words. Thus, a metaphorically derived word such as *braindrain* would not be marked as a metaphor because its sole (and hence basic) meaning codified in dictionaries of contemporary English is that of loss to a country resulting from emigration of skilled people. Hence, this word is not metaphorically used, an interpretation that strikes many as being counterintuitive. To parry that reaction, Steen uses the word *understanding* as an analogy. Few would support a decision to deconstruct *understanding* into its component parts to identify metaphor (Steen et al. 2006). The same reasoning holds true for other compounds.

Moreover, although the procedure depends on the cognitive linguistic model of cross-domain mappings underlying metaphor, these mappings are not identified. MIP involves the linguistic level because it identifies linguistic metaphors rather than conceptual metaphors. To mark an expression as metaphorically used, it is sufficient to note the operation of a source and target domain, together with the necessary correspondence of real or perceived similarity (Steen 2005: 315-316). MIP is only the first step of the five-step procedure designed to explicitly reveal the links between linguistic and conceptual metaphor (see Steen 1999a, Steen et al. 2008). In effect, MIP targets possible (although probable) linguistic metaphors. Formally, however, four remaining steps are required to document the conceptual metaphor activated, if any.

4.11 Reliability

In this study, MIP was followed in the identification process because the procedure aims at providing not only a valid, but also a reliable means of identifying metaphor in discourse. MIP offers an alternative to pure reliance on intuition, having the advantage of making the

identification process both transparent and repeatable. Given the same text, two or more researchers who use MIP should be able to identify more or less the same linguistic metaphors. Discrepancies are nevertheless unavoidable. One contributory factor involves the technical process of registering metaphor. Any system must have some means of data organization, in my case a Microsoft Access table. The analysis of 40,000 lexical units consequently afforded 40,000 chances to click the wrong button and thereby unintentionally register the degree of metaphoricity incorrectly. Such potential for error is multiplied by the number of factors one is trying to register. A second potential cause of error lies in sheer oversight. Metaphor identification in large amounts of text involves many, many hours of concentrated work in front of a computer screen, so that any researcher is likely to overlook metaphors on at least a few occasions. As the Pragglejazz Group admits, “Metaphor identification, and specifically using MIP, is hard work and must be done slowly” (Pragglejazz Group 2007: 36). Furthermore, differences can arise as a result of misunderstanding the procedure, especially in the beginning stages when one is first trying out MIP. Such problems, however, are likely to be ironed out before too much text has been analyzed, but if the analyst were to modify any procedural detail midway in the identification process, an overhaul of the data that has already been processed would be necessary. The problems involved due to oversight, either in the original analysis or in an overhaul meant to adjust initial errors, may lead to an inadvertent lack of consistency.

A further potential cause of discrepancies may lie in a genuine disagreement over what MIP has or has not identified as metaphorical. The individual judgement of the researcher plays a definitive role even with such a clearly outlined process as MIP. Slavish adherence to MIP is neither possible nor desirable. Although researchers are likely to agree in a majority of core cases, more marginal instances may be disputed. These might include issues relating to the metaphoricity of function words such as demonstrative pronouns and determiners, as well as prepositions such as *of* and *for* whose basic meaning may not be immediately obvious. This last factor need not affect internal reliability in terms of the stability of analysis, provided the analysts are consistent in their choices. It has a potentially more serious effect upon inter-rater reliability and the subsequent possibility of comparing and contrasting results reached in separate studies by different analysts. If analysts are forthright and absolutely clear about the areas in which they have deviated from standard MIP, however, then such transparency will go far in better allowing for comparison of metaphor studies as well as foster further theoretical discussion and development of MIP.

An ideal means to test reliability of metaphor identification is a variation of Cameron's suggested inter-rater procedure, where individual raters analyze the same texts and then compare their results. Steen (2002), for example, reports on the results of such a collaborative effort in his account of the origins of the Pragglejaz procedure (detailed in section 4.2). The VU researchers also ran several reliability tests where a particular text was independently analyzed for metaphor by all researchers to allow for comparison. Discrepancies were then discussed to further fine-tune the procedure (Steen et al. in press-b). Cameron, however, specifically calls for the analysis by a number of disinterested parties, alluding to the possibility of an over-eager researcher "finding" more metaphors than are actually present (Cameron 2003: 63-64). Truly disinterested metaphor researchers are, however, hard to come by. Use of MIP may therefore mitigate any potential skewing of data by impelling researchers to follow clear identification guidelines for each and every lexical unit such that justification for the identification of metaphor may be offered in each instance. Moreover, group discussion among analysts examining the same material is recommended. The VU researchers, for example, worked in close collaboration with regular troubleshooting meetings in which the group would reach consensus about particular cases any one researcher found challenging. Such decisions were then entered in a database available for future consultation and/or amendment by any members of the group. Finally, two passes of the material is also recommended, preferably on different days (Pragglejaz Group 2007: 36).

In the cases of metaphor analysis involving short pieces of discourse, cooperative efforts might indeed be practical. Such a collaborative approach has been carried out, for instance, in a 2008 study where three metaphor researchers individually identified metaphors in three university lectures using MIP and then compared and discussed their results before using those results as the basis for further research (see Low et al. 2008). Due lack of qualified manpower and/or constraints on either time or funding, however, not everyone has the luxury of collaborating or consulting with other researchers who are equally familiar with MIP. In the case of my project, which involves quite large amounts of text, I would have been hard-pressed to find one or two researchers to agree to analyze my texts and provide a countercheck to my analysis. Even the two passes recommended by the Pragglejaz Group were not possible due to time considerations. Analysis of the 40,000 lexical units required a solid academic year to accomplish (a conservative estimate), making it impossible to simply begin again from scratch and re-analyse the entire group of essays. By way of comparison, the original goal of the VU researchers had been the identification

of metaphorically used words in four samples of 100,000 words from the BNC Baby. It turned out that this goal was too ambitious given the limited time available for the identification stage of their research. Consequently, they settled on the identification of metaphorically used words in a sum total of 200,000 words, amounting to 50,000 words per sample.

4.11.1 Internal consistency

As an alternative to a second pass of the entire material or inter-rater statistical analysis, I chose to estimate the reliability of my results following a procedure which afforded a compromise, by measuring the internal reliability of my metaphor identification. Two months after the initial analysis of the essays was completely finished, I chose 4 essays for a second analysis, according to the following guidelines:

- (i) 2 essays from NICLE and 2 essays from LOCNESS
- (ii) Each essay consisted of approximately 500 words such that roughly 2000 words would be reanalyzed.
- (iii) 1 of the 2 NICLE essays and 1 of the 2 LOCNESS essays had first been analyzed towards the start of my project. The other two essays had first been analyzed towards the end of the initial pass.

Each lexical unit in the four essays was reanalyzed, and the results were then compared with my original evaluation. Any changes in either judgement of metaphoricity or metaphorical categorization were noted, together with explanations for probable reasons explaining the difference between my original and final decisions. In essence, this second review allowed me to gather evidence about the internal consistency of my analysis. Although there are undoubtedly mistakes in my coding, this check gives me an indication about whether those mistakes are numerous enough to potentially invalidate conclusions reached on a basis of the results.

Table 8 shows the results of metaphoricity judgements from the first and second passes. In the second pass, an additional 15 out of the entire 2090 words were identified as metaphorical. This total is a bit misleading, however, because it underrepresents the sum total of changes made. To be specific, 23 words were reclassified. Of these, 19 had originally been classified as MRW and were changed to non-MRW, whereas 4 were reclassified from MRW to non-MRW. These differences are not statistically significant, indicating that I have applied MIP to my data in a consistent manner. It is nevertheless instructive to more closely examine the nature of the changes. Two were clearly typos. The words had been marked as non-MRW, which was the default value in my database, but had

also been categorized according to conventionality of metaphoricity, indicating that I had originally intended them to be coded as MRW.

Table 8: Results of First Pass and Second Pass metaphor identification

Text	Total words	First Pass		Second Pass	
		MRW	Non-MRW	MRW	Non-MRW
ICLE-NO-AC-0021.1	532	101	431	105	427
ICLE-NO-BE-0019.1	502	88	414	95	407
ICLE-ALEV-0004.6	543	89	454	89	454
ICLE-ALEV-0021.8	513	96	417	100	413
Total	2090	374	1716	389	1701

Eleven of the discrepancies involved decisions that I had made in the process of coding, involving my coding of dead metaphors in two instances, the preposition *of* in six cases, and mistaken lexis where in one instance the noun *expert* was written presumably instead of the verb *expect*. The remaining instances consisted of oversights, six being lexical words and four being overlooked metaphorically used function words.

The second pass of the four essays also revealed minor discrepancies in the categorization of metaphor conventionality, a classification that relies on Deignan's (2005) suggestion for corpus-based research rather than MIP. First, 17 of the 19 lexical items which were reclassified from non-MRW to MRW were also in need of categorization according to conventionality. Other than that, the degree of conventionality for items that had correctly been identified as metaphorical was reclassified for 12 words. Of these, 7 were typographical errors by which a preposition for example had been classified as *conventional* instead of *functional conventional* and 2 were cases where adverbs had been classified as *functional conventional* instead of *conventional*. This error actually has nothing to do with degree of conventionality as both categories identify conventional linguistic metaphors. As discussed in section 3.5.2, this division was instead instituted to divide lexical word classes (*conventional*) from function word classes (*functional conventional*). The three remaining instances involved a decision made in the midst of the identification work concerning how to mark words used in a codified metaphorical sense but appearing in an unusual collocation. An example is *making* in (18):

(18) Let me start by making you a brief introduction of what I will explore further. ICLE-NO-AC-0021

Here the verb *make* is used in its delexical sense listed in MED3, a conventional metaphorical extension. However, the collocation of *making a brief introduction* is unusual, as testified to by evidence from the BNC which shows that the verbs which most

commonly collocate with *a brief introduction* in this context are *give* and *provide*. An October 2008 WebCorp search for collocates of *a brief introduction* also provided examples with *give* and *provide*. In addition, the BNC also provides one example with *launch into* which would be appropriate here, but neither WebCorp nor the BNC contains an example with *make*. I initially marked such instances as *novel*, but later changed the classification to *conventional* and added a separate coding to mark special collocation.

In summary, this check of my data reveals a high degree of consistency in both the categorization of the metaphoricity of lexical items in my data, as well as the further classification of the degree of conventionality of those items judged to be metaphorical in use. All in all, a total of 39 out of 2090 words were reclassified in the second pass, which amounts to 1.9% of the material. As a result of this second pass, all prepositions which had been marked as metaphorical in my entire database of 40918 total words were checked to ensure that they were also marked as function rather than lexical word classes, such that an additional 68 errors were discovered and corrected. In addition, all metaphorical instances of the adverbs *here* and *there* were checked to make sure that they were also marked as lexical words, a procedure which led to 9 adjustments. While my finalized data is by no means 100% accurate, deviations would seem to be relatively few.

The initial reliability tests run first by the Pragglejaz Group indicated that reliable identification of metaphor was an attainable goal. Later on, the reliability tests run by the VU Amsterdam researchers during the course of developing MIP produced a high degree of inter-rater reliability, meaning that the analysts were mostly in agreement concerning which words were MRWs (Steen et al. in press-b). My own reliability testing, where I repeated the identification process at a later period for a sample of my data and then compared the results with my initial analysis, show that my use of MIP exhibits high reliability in terms of stability. Threats to reliability necessarily constitute threats to validity, as systematic validity depends upon consistency. Here though, it has been shown that something is being consistently identified, and assuming that Conceptual Metaphor Theory in which MIP finds its foundation has merit, that something is linguistic metaphor.

4.12 The overall evaluation

4.12.1 Drawbacks of MIP

MIP clearly does not provide an appropriate method for those researchers who are primarily interested in lexical units which are metaphorical in origin, as MIP only captures those words metaphorical in use. Three main categories of what are typically considered metaphor

are affected by this consideration. First, historical metaphors such as *fervent*, whose original meanings have become archaic, are not identified as metaphorical because what was once only a figurative extension has since become the basic meaning. As a result, researchers interested in diachronic metaphorical studies must either modify MIP to include etymology as a primary criterion or employ some other means of identifying metaphor. Second, because MIP distinguishes between otherwise identical forms on the basis of their word class or grammatical category in the analysis for metaphor, it necessarily fails to identify those lexical units whose metaphoricity depends on syntactic considerations, as was illustrated by Deignan's example of the nominal and verbal forms of *squirrel* and by Goatly's examples of the transitive and intransitive meanings of *stagger* in section 4.7. Those interested in this type of metaphorical extension will be disappointed in MIP. Third, the backseat role of etymology in MIP can result in some unfortunate decisions, where the dominant role of concreteness in the determination of a word's basic sense can result in historically inaccurate and counterintuitive decisions. This was shown in section 4.7.2 to be a potential problem in the case of abstract to concrete mappings. Steen et al., by contrast, in retaining their priority of the criterion of embodiment, maintain that such abstract to concrete mappings are counterintuitive.

Identification of the limits of lexical units can also be challenging, as the MIP guidelines for determination of both phrasal verbs and compounds are detailed and represent an arguably unnecessary departure from the otherwise heavy reliance on standard dictionaries. The primary argument for the decision to treat these multiword units as "words" – in effect, single lexical units – is that they share a single referential function. As this same consideration would appear to apply equally to lexicographers, second-guessing standard lexical entries in this one area only serves to add further burdens to an already labor-intensive procedure.

In addition to such potential problems related to theoretical considerations, there are also a number of practical points that may seem daunting. Most notably, MIP is a time-consuming process to employ. Although acquiring a basic understanding for the logic underpinning the identification process is not difficult, the actual application of the method to discourse is a bit trickier. Language in use can be complicated, causing the researcher to ponder all manner of detail concerning basic and contextual meanings as well as the relationship between the two. After an initial break-in period of a few months, I was finally able to analyze anywhere between 300 and 1000 words of text per day. Each day's final tally depended upon the particular words encountered. The work can be compared to the

challenges of the task of translation: a large proportion of most texts provides few translation challenges, but the translator inevitably runs across a particular word or phrase that proves exceedingly difficult to translate and requires research. As a translator gains experience, however, the number of words perceived as especially challenging decreases.

Related issues include measurer performance and the practice effect, both of which Steen discusses in connection with the application of MIP (Steen 2007: 126-127). Measurer performance is linked with the stamina of the analyst. MIP takes both time and concentration, such that a second pass and/or inter-rater analysis is called for to increase reliability. The practice effect alludes to the vast number of decisions made when one is confronted by thousands of words in texts. Constant reminders as to what has previously been decided are required to maintain consistency. To this end, a useful resource is a constantly expanding lexical database recording those items that presented challenges together with decisions about basic sense and the relationship between that sense and others.

One of the hopes of the Pragglejaz researchers was to create a consistent procedure for metaphor identification, such that results from studies carried out by different individual researchers or research groups could more easily be compared, allowing for the comparison of like with like. Since 2006 when MIP was unveiled to a wider public, conference papers show that many researchers have turned to the procedure, referred to as “the popular MIP procedure” in the John Benjamins Publishing Company’s promotional blurb for Steen et al.’s 2010 book on MIPVU (see also section 4.2).⁵⁷ In such presentations, these researchers first explain that they have utilized MIP, and some of them take the time to list the four steps and briefly elaborate on the details of the process for the benefit of the audience. In other cases, they simply proceed to their findings on the assumption that MIP is generally understood and accepted. With so many researchers beginning to use the same system for metaphor identification, it would appear that the Pragglejaz hope is in the process of realization.

Based on my experience with MIP, however, assumptions of either understanding or acceptance are unwarranted. MIP is deceptively simple, a procedure whose four steps comprise, in reality, a minimum of seven steps. What this entails is that a simple statement to the effect that MIP was used to identify metaphor is insufficient to guarantee what the researcher actually did. Ideally, researchers who have utilized MIP should explicitly identify those areas where they have deviated from the published procedure, but such clear

⁵⁷ This promotional blurb is also available online at http://www.benjamins.com/cgi-bin/t_bookview.cgi?bookid=CELCR%2014 (Retrieved April 13, 2010).

statements require an in-depth understanding of the MIP's details that might be lacking, given the number of details which are necessary to keep in mind. Moreover, MIP's seemingly cut-and-dry process which reduces metaphorical identification to the word level is controversial among those who hold that metaphor is best analyzed in terms of chunks of language. In addition, those who link their definition of metaphor to degree of activation or consciousness of use would either deny that MIP identifies metaphor or claim that most of what MIP identifies as metaphor is simply uninteresting.

4.12.2 Benefits of MIP

The clear and overriding advantage of employing MIP is transparency in the identification process. MIP channels the analyst into making clear decisions with steps that may be retraced and explained, rather than decisions based on intuition alone. Intuition is notoriously unreliable, as it varies from person to person and can also be applied by the same person in irregular fashion to language at different times. Close attention to identification criteria and procedures required by MIP is vital to avoid unsubstantiated claims of metaphoricity.

MIP only concerns itself with linguistic metaphor, but those researchers more interested in the underlying conceptual metaphors should also find value in the procedure. Conceptual metaphors are after all reflected in speech, such that linguistic metaphors provide important evidence for the existence of conceptual ones. A reliable procedure for the identification of linguistic metaphors is thus a prerequisite for any reliable identification of the existence and extent of conceptual metaphors. With this in mind, the expanded protocol of MIPVU constitutes the first step in a five-step procedure which sets out guidelines for mapping out the path from lexical unit in discourse to underlying conceptual metaphor.

Applying MIP to novice language, whether it be L1 or L2 English, is almost as straightforward as applying it to the English of more advanced writers. Delimitation of lexical units in novice English requires extra consideration, as learners may be prone to creating non-standard compounds, polywords, and/or phrasal verbs. Strict application of MIP would require each individual element of such units to be analyzed separately; otherwise the researcher may adjust the procedure somewhat to cater to such anomalies. Specific lexical innovations that result from L1 transfer, for instance, are identified through MIP as possible linguistic metaphors, something which might seem counterintuitive. Many such instances, however, would likely be weeded out by the five-step procedure as cases which are in actual fact not metaphorical. Furthermore, the expanded MIPVU protocol

allowing for the label DFMA (Discarded for Metaphorical Analysis) in the case of completely unintelligible text was adopted as part of my “MIP Plus” method, although it was hardly ever required for the NICLE or LOCNESS texts (see 5.2 for details). Granted, the language in the NICLE texts is generally regarded as being high intermediate to advanced;⁵⁸ the number of DFMAs and other anomalies might increase in texts written by less advanced writers of English. Nevertheless, it should be possible to successfully apply MIP to texts with less fluent English by maintaining a sharp focus on the individual word at hand for analysis. As recounted in section 4.6.1, even the most garbled of the LOCNESS texts was able to be analyzed through MIP.

4.13 Concluding remarks

In determining metaphoricity, the analyst is faced with all sorts of decisions, the true answers to which are rarely exact, but are rather shrouded in a veil of ambiguity and fuzziness. Where does one semantic domain end and another pick up? Can one always clearly distinguish between metaphor and metonymy? Where does one draw the line between abstract and concrete? Are the dividing lines between lexical units always so clear? Should one distinguish between those terms that are metaphorical in use and those metaphorical in origin, or does that lead to the essence of metaphor being lost? The basic dilemma is that MIP tries to impose a simple yes/no nominal structure on language, which is far too complex a phenomenon to mold itself to such a simple framework:

Like all other scientists, linguists wish they were physicists. They dream of performing classic feats like dropping grapefruits off the Leaning Tower of Pisa, of stunning the world with pithy truths like “ $F=ma$ ”, and in general of having language behave in an orderly way so that they could discover the Universal Laws behind it all. Linguists have a problem because language just ain’t like that. (Becker 1975: 60, underlining in the original)

Although worded with tongue in cheek, Becker’s point is valid. Language cannot fit into a neat little box. This is especially the case with metaphor, particularly if one adheres to the tenet of cognitive linguistics that our language reflects the way we think.

On the other hand, as Steen argues, “One reason why a nominal scale may still be preferable despite its coarseness is precisely the fact that the other scales [e.g. rank scale, interval scale, ratio scale, etc.] make the assumption that measurement can be carried out in more precise ways” (Steen 2007: 92). Any particular lexical unit is either metaphorical or not; it cannot be simultaneously be both (bridge metaphors being the exception that proves the rule). As both linguists and philosophers of language have postulated, however, there are also degrees of metaphoricity (see section 2.4.4). Such a cline is not captured by MIP alone,

⁵⁸ See section 3.2.3.1 about NICLE and the CEFR grading scale.

something I have attempted to address through employing a modified version of Deignan's corpus-based categorization procedure. Even so, my results yield a relatively small number of dead and novel metaphors together with a vast number of conventional metaphors. Within this last group are undoubtedly linguistic metaphors more or less metaphorical than each other in terms of nearing either the dead or alive end of the scale. Goatly, for example, suggests this with his typology which includes two distinct variants of *inactive* metaphors (*tired* and *sleeping*) that depend on the extent to which the metaphorical ground is evoked. Although Goatly presents a few examples of each category, there is no suggested procedure for any consistent determination. At this point, I conclude that such a process for determining shades of conventional metaphoricity eludes us. Rather, the vast group of conventional linguistic metaphors forms a pool of data available for qualitative examination. Having first identified the metaphorical lexical units employed in a conventional fashion, one could then work further with a selection of these to investigate various features relating to, for instance, conceptual metaphors or phraseology.

An additional consideration is that few projects require the identification of each and every metaphor in the material at hand. Stefanowitsch's Metaphor Pattern Analysis, by which one searches for a particular item in a target domain (Stefanowitsch 2006b), is a case in point. After having identified all phrases in the data with such a key term, the analyst must then determine which of those cases instantiate linguistic metaphor. Stefanowitsch offers no guidelines as to how to do so, and it is here that MIP could come in handy.⁵⁹ MIP is also suitable for combined manual/partially automated extraction of metaphor, whereby one first manually analyzes a manageable sample of text and then uses the findings for concordance searches in the main corpus (see Deignan 2009: 9, 16 about the sampling method). MIP can thus operate together with other procedures to strengthen the validity of the attained results, even when the goal is to identify only a subset of the linguistic metaphors.

⁵⁹ This combination of methods was utilized by for example Dan Yan et al. in a 2009 conference paper on metaphors of SADNESS where all references to the key word "sadness" were identified following the Metaphor Pattern Analysis and then the immediate context of all such retrieved instantiations was then examined using MIP (Yan et al. 2009).

5 The general portrait of metaphor in NICLE and LOCNESS

5.1 Introduction

This chapter presents comparative portraits of the data gathered through the application of MIP to NICLE and LOCNESS. Word category profiling, discussed in section 5.1.1, is employed as a means to approach the large quantities of data necessarily generated in such a corpus-based study. Such profiling provides a way to organize the data and illuminate both similarities and differences between metaphorical usage in the two corpora. This chapter is thus primarily quantitative in nature, in that it provides an overview of the observed frequencies of metaphorically related words in terms of their potential interaction with various factors such as L1, word class, and degree of metaphorical conventionality. The overall observed frequencies of MRWs and non-MRWs in the two corpora are first presented in section 5.2. Section 5.3 explores these same numbers by adding the factor of word class, and is then followed in section 5.4 by an investigation of the observed MRWs in terms of not only word class, but also degree of conventionality. Finally, section 5.5 offers concluding remarks.

5.1.1 Word category profiling

One way of creating a portrait of the language patterns in NICLE and LOCNESS is through the creation of word category profiles, by which the “unique matrix of frequencies of various linguistic forms” (Krzyszowski 1990: 212) for the different language varieties can be compared and contrasted to identify their distinguishing features. Granger and Rayson maintain that such profiles offer a quick means of developing a reliable impression of the interlanguage of learner populations, given the advantages of electronic corpora and tools for automatic part-of-speech annotation. They have carried out such a study involving word category profiling and comparison of the French component of ICLE and LOCNESS. Here they report significant patterns of both overuse and underuse of the various word classes in their two corpora, indicating that written French L2 English has more informal characteristics than the British English in LOCNESS (Granger and Rayson 1998). In connection with metaphor in particular, Goatly maintains that “the most obvious way of classifying metaphor is to categorize them according to the word-class to which the V-term belongs” (Goatly 1997: 82).⁶⁰

⁶⁰ *V-term* stands for “Vehicle-term.”

The VU researchers follow a similar approach in the preliminary exploration of the data gathered during the development of MIPVU, by investigating the three-way relationship between metaphor, register, and word class (Steen et al. 2009, Steen et al. in press-b). They employed a version of Biber's multi-dimensional (MD) approach, a methodology which – in its original version – involves the systematic identification of the linguistic co-occurrence of features associated with register variation through quantitative analysis of texts in written and spoken registers (Biber 1988). Through application of the MD methodology, Biber finds that co-occurrence patterns of 67 linguistic features (including lexical classes, grammatical categories and syntactic constructions) reveal seven more or less obvious “factors.” In turn, he interprets these factors as “dimensions of variation, describing how each dimension represents a continuum along which registers of English vary” (Conrad and Biber 2001: 228-229). In other words, Biber examines these seven identified groups of features and tries to come up with plausible explanations for their varying degrees of frequency in the registers examined.

Subsequent studies employing the MD approach have taken one of two paths: either they have applied the MD methodology to characterize additional registers than those investigated in Biber's 1988 study, or they have applied “previously identified dimensions to new areas” (Conrad and Biber 2001: 14). In applying the MD approach to a comparative study of metaphorically used words across four different registers, Steen et al. follow the latter approach. Yet they severely limit the numbers of linguistic features under consideration by only examining the frequencies of the eight major word classes,⁶¹ presumably because the BNC Baby was already POS tagged by CLAWS, making frequency counting of tokens from each word class a relatively painless affair. Because of this, the direct link between Steen et al.'s investigation into the relationship among metaphor, word class, and register and Biber's MD study of register is somewhat tenuous. By way of example, Steen et al. compare and contrast the number of verbs (both MRWs and non-MRWs) found in all four registers. Biber, by contrast, identifies a much more specified set of linguistic features related to verbs, all of which contribute in varying ways to the seven linguistic factors and by extension, to the seven dimensions of genre variation: tense and aspect markers (past tense, perfect tense, present tense), passives (agentless passives, *by*-passives), modals (possibility modals, necessity modals, predictive modals), specialized

⁶¹ See section 5.3.1 for an overview of these eight word classes.

verb classes (public verbs, private verbs, suasive verbs, *seem* and *appear*), as well as certain “dispreferred structures” that involve verbs (split infinitives, split auxiliaries).

Despite these simplifications of Biber’s original method, the approach of dividing MRWs and non-MRWs by word classes does allow for a means of breaking down large quantities of information into bite-size pieces and isolating where potentially significant differences between MRWs and non-MRWs in the different registers lie. The same slant taken by Steen et al. of investigating the relationship between metaphor, word class, and register could therefore also provide insight here when adapted to investigate the relationship between metaphor, word class, and L1. In essence, this approach consists of word category profiling, with the extra twist of metaphor as an additional dimension of comparison. At the very least, this approach provides a useful way to present an overview of my data and make some sense of the masses of information which a quantitative study of this scale necessarily generates.

5.1.2 CLAWS and novice language

As discussed in chapter 4, one of the preliminary MIP steps involves the determination of lexical units into either single words or more complex units, such as phrasal verbs and compounds. Such demarcation provides the starting point for each individual analysis in the process of metaphor identification. Corpus annotation for word class is required by MIP, particularly for the identification of phrasal verbs. As a consequence, my texts were run through CLAWS, the same automatic tagging system that was applied to the BNC. The C5 tagset developed for the BNC, containing approximately 60 word class tags, was employed. In addition to aiding in the process of demarcating lexical units, however, the CLAWS POS tagging was essential for the production of the overview concerning the potential interaction between metaphor, L1, and word class presented in this chapter. Consequently, the question of the efficacy of CLAWS with regard to learner language needs to be addressed.

In general, the accuracy rate of CLAWS is estimated at 96-97%.⁶² A more detailed account of the accuracy rate for the C5 tagset is found in the online BNC manual,⁶³ where the estimated fine-grained accuracy rates for the whole corpus is divided into a 3.75% ambiguity rate and a 1.15% error rate. Calculations for coarse-grained accuracy rates, which take into account only those errors which cross major word class boundaries, produce the necessarily improved figures of a 2.77% ambiguity rate and a 0.71% error rate. These

⁶² Source: CLAWS part of speech tagger for English, <http://ucrel.lancs.ac.uk/claws/>, Retrieved on November 12, 2009.

⁶³ POS tagging error rates, <http://ucrel.lancs.ac.uk/bnc2/bnc2error.htm>, Retrieved on November 12, 2009.

accuracy ratings, however, are generated on the basis of analysis of POS tagging of 50,000 words from the BNC, 90% written material and 10% spoken material. The written texts are mainly produced by professional writers in fields ranging from commerce and finance to arts to applied science, and the spoken text is produced by native speakers of English in various contexts ranging from a museum society meeting to medical consultation to general conversation.

When it comes to L2 learner English, Nesselhauf warns “it is not usually advisable to perform fully automatic analyses on learner corpora” (Nesselhauf 2004: 130). The success of automatic tagging depends on the type of text, and the higher percentage of morphological and syntactical errors typical of NNS texts can result in less accurate tagging (Granger 2007a: 58). This is partially supported, for example, by an investigative study into the accuracy of CLAWS in tagging Polish spoken L2 English, where learner-related issues constitute one of five problems which trigger inaccurate tagging (Jendryczka-Wierszycka et al. 2009). On the other hand, the second version of ICLE is POS tagged by CLAWS. Meunier reasons that a special interlanguage tagger is needed only in cases of extremely deviant language. For advanced learner language, she argues, the tagger success rate might actually be slightly higher due to learners’ structurally less complex constructions (Meunier 1998: 21). Furthermore, CLAWS is resilient enough to tackle some learner-produced errors. By way of example, the aforementioned study of Polish L2 English also documents cases of correct tagging by CLAWS of learner errors.

For this project, I have not carried out a systematic investigation into the accuracy of CLAWS in tagging the NICLE and LOCNESS texts. However, in the course of working with my data, I have come across and recorded a number of errors. The observed inaccuracies involving the tagging of the adverbial particle (AVP) have already been discussed in section 4.5.1, in connection with MIP. In addition to the AVP errors, 34 other tagging errors were observed and corrected. 16 of these errors were in NICLE, while 18 were found in LOCNESS. 18 of these total errors (5 in NICLE and 13 in LOCNESS) may be attributed to issues related to novice writing. In turn, 9 of these 18 errors are caused by problems of punctuation and/or spacing. The most common error in this regard is a lack of space between the period marking the end of one sentence and the beginning of the next, as in (19).

(19) ...as one problem is solved, another often appears.As a result... ICLE-NO-BE-0010.1

Here, the construction *appears.As* has been tagged as a common noun (NN0), a strategy followed in other parallel cases. The CLAWS POS tagger thus seems to have defined the

NN0 category in such a way, presumably based on calculations of probability, that it is unable to distinguish common nouns from this type of error.

Morphological errors involving omission of either a letter or space which result in the formation of a nonsensical word produce a variety of inappropriate tags. For example, items such as *agains* (for the preposition *against*) and *theses* (for the pronoun *these*) are tagged as plural common nouns (NN2), presumably resulting from the *-s* ending. The item *czeslovakia* with its lowercase *c* is classified as a common noun (NN1) rather than proper noun. Other taggings are somewhat more incongruous, such as *afterall* being tagged as the finite base of a lexical verb (VVB). Morphological errors that result in the production of a word that is lexicalized in dictionaries are tagged on the basis of that actual word. Thus, *there* (for the determiner *their*) is tagged as a general adverb (AV0), and *were* (for the subordinating conjunction *where*) is tagged as the past tense of a lexical verb (VBD).

The majority of the 16 remaining cases, attributed to learner error, involve words which jump word classes. Examples include *before* and *considering* tagged as subordinating conjunctions (CSJ) when they appear in context as a general adverb (AV0) and the *-ing* form of a lexical verb (VVG) respectively. In addition, two prepositions (in *dreams are like fingerprints* (ICLE-NO-AG-0006.1) and *...rather than through infertility* (ICLE-ALEV-0026.8) have been tagged as adjectives (AJ0), presumably due to their pre-nominal position. Only one-off cases of most of these errors have been observed, with the exception of 6 cases where the preposition *to* has been tagged as the infinitive (TO0). This particular tagging error is common enough to also make the online BNC manual's list of frequent incorrect tagging.

Because this small sample of revealed tagging errors is the result of incidental observation during the course of data compilation rather than the result of a systematic and thorough survey, it does not provide the basis for any definitive conclusion concerning the accuracy of CLAWS in tagging my NICLE and LOCNESS data for word class. These are hardly likely to represent the sole errors in my data. However, the fact that so few errors were observed despite lengthy immersion in my data does offer some indication of the robustness of CLAWS in annotating the Norwegian and British material.

5.2 Overview: MRWs versus non-MRWs in the corpora

In all, 40918 lexical items were analyzed for linguistic metaphors. Of these, 20675 items (50.5%) are in NICLE and 20243 items (49.5%) are in LOCNESS. Therefore, roughly half of the investigated items are Norwegian L2 English and half are British English. Each item

was first divided into one of three categories which adhere to the terminology of MIP: metaphorically related words (MRWs), words not related to metaphor (non-MRWs), and words discarded for metaphorical analysis (DFMA). My threshold for rejecting an item was high, and as a result only 52 of the approximately 40,000 items were discarded. All of these DFMA cases are found in LOCNESS, ostensibly the result of the production conditions. As noted in section 3.2.3.3 describing LOCNESS, Granger has explained that the essays were written as part of the pupils' mock exams. Presumably therefore, they were both handwritten and timed, conditions which typically lead to illegibility. By contrast, the NICLE essays were untimed and likely submitted in a typed format.

In any case, the DFMA terms represent 0.3% of the LOCNESS material, and 0.1% of the overall material. Thirty-two of these 52 items are annotated in the ICLE corpus with the symbol <?>, indicating the uncertainty of the annotator. Indeed, 20 of these cases were apparently so illegible or unintelligible as to preclude the inclusion of even a single letter in the transcription; the question mark symbol indicates that although a word was intended, it is completely indecipherable. The remaining cases consist mainly of misspellings of words, rendering those words incomprehensible. By way of illustration, consider the use of *pression* in (20).

(20) A computer can never break programming it will always follow it to pression. ICLE-ALEV-0009.6

Upon first encounter with this text, I was unable to ascertain the target vocabulary for the clearly incongruent term *pression*. Further readings led me to conclude that the writer intended the lexeme *precision*, but a number of other words are possible here (e.g. *press*, *pressure*), especially given this writer's demonstrable problems with lexis and syntax. As there is no entry for the word *pression* in contemporary general language dictionaries, I am unable to determine either the basic or contextual meanings and then compare them.

Turning towards the heart of this study, my results show that 7088 of the total 40918 units analyzed are MRWs, while 33788 units are non-MRWs. This means that 17.3% of the total text examined consists of metaphorically used words, while 82.6% is not related to metaphor. Thus, between one in every five and a half to six words in NICLE and LOCNESS combined expresses an indirect metaphorical relationship.⁶⁴ This figure can be compared to that produced through the only other study to date of which I am aware that involves the quantitative analysis of corpus data, namely the 200,000 word analysis of the BNC Baby by the MIPVU developers. They find that that approximately 13.5% of the 200,000 words are

⁶⁴ As explained in section 4.2.2, direct expressions of metaphor, such as simile, were excluded from this study.

MRWs, corresponding to an average of one in every seven and a half words (Steen et al. in press-b). They thus uncover less metaphorical language in the BNC Baby than I find in texts produced by novice writers.

Their results, however, stem from the application of MIPVU to four different registers, one of which is a spoken medium. They report that conversations exhibit only roughly half the number of MRWs (i.e. one in every thirteen to fourteen words) than are identified in the three written registers. Inclusion of the results gathered for spoken English necessarily lowers the overall average of MRWs. On the other hand, the MIPVU method applied by Steen et al. to the BNC Baby identifies all forms of metaphor, unlike MIP. As a result, their figures include metaphor types which my data does not, and would necessarily be somewhat higher than mine, all else being equal. Note, however, that these added directly expressed metaphors most likely do not lead to any great quantitative difference. Steen et al. highlight their findings of an extremely low number of metaphorical flags indicating similes, analogies, etc. From this, they conclude that indirectly-expressed metaphorical language is overwhelmingly favored over direct expression of metaphor in actual discourse. They find this surprising given the amount of attention accorded to tropes such as simile in the literature on metaphor (Steen et al. 2009, Steen et al. in press-b). In any case, both studies provide quantitative support for the claim of cognitive linguists that metaphor in language is ubiquitous. Moreover, comparison of the results of the two studies suggests that novice writers employ more metaphorical language in their writing than professional writers.

The division of my data by corpus is presented in Table 9, where it can be seen that there are 3677 MRWs and 16998 non-MRWs in the 20675 NICLE units. There are 3401 MRWs and 16790 non-MRWs in the 20243 LOCNESS units. Therefore, 17.8% of NICLE is metaphorical in use whereas 82.2% is not related to metaphor. The corresponding figures for LOCNESS are 16.8% MRW and 82.9% non-MRW, with 0.3% rejected for metaphorical interpretation (DFMA).

Table 9: Distribution of MRWs, non-MRWs and DFMA in NICLE and LOCNESS

	NICLE	LOCNESS	NICLE + LOCNESS
MRW	3677	3401	7078
Non-MRW	16998	16790	33788
DFMA	0	52	52
Total	20675	20243	40918

Thus, one in approximately every five and a half words (more precisely, 5.62) words of the Norwegian L2 English is related to metaphor whereas roughly one in every six words (more precisely, 5.95) in the British A-level material is metaphorical in use. This difference in the MRW to non-MRW ratio in the two corpora is statistically significant at the level of $p=0.05$ ($\chi^2= 6.31$ (df=1), $p=0.012$). Using LOCNESS as a benchmark, one may conclude that there appear to be more metaphorically used words in NICLE than would occur by chance.

5.2.1 Simple versus complex lexical units

The basic unit of analysis for MIP is the lexical unit. As discussed in section 4.5, most lexical units are single words and for this reason the terms *lexical unit* and *word* are employed interchangeably in most parts of this study. However, some lexical units – namely polywords, phrasal verbs, and compounds – are complex in that two or more units are linked due to their single referential function in texts and are analyzed for metaphor on that basis. The raw figures presented above in Table 9 do not take the distinction between simple and complex lexical units into account. Adjusting these figures to reflect the actual number of lexical units as defined by MIP rather than the total number of lexical elements produces the figures presented in Table 10.

Table 10: Frequencies of simple and complex lexical units in NICLE and LOCNESS, as a function of relation to metaphor

Lexical units	NICLE		LOCNESS		NICLE + LOCNESS	
	MRWs	Non-MRWs	MRWs	Non-MRWs	MRWs	Non-MRWs
Simple	3567	16136	3337	16056	6904	32192
Complex	55	431	32	367	87	688
Total	3622	16567	3369	16423	6991	32880
	20189		19792		39871	

In essence, complex lexical units comprise fewer than 2% of the 39871 lexical units analyzed for metaphor, and they also account for roughly only 1.25% of the 6991 total lexical units identified as metaphorically related words. Moreover, taking complex lexical units into consideration hardly changes the percentages relating to various NICLE and LOCNESS ratios, such that NICLE comprises 50.6% of the entire material examined, while LOCNESS makes up the remaining 49.6%. 17.9% of the lexical units in NICLE are related to metaphor and 82.1% are not. Corresponding figures for LOCNESS are 17.0% MRW and 83.0% non-MRW. The difference in the ratio of MRWs and non-MRWs in NICLE and LOCNESS remains statistically significant at the level of $p=0.05$ ($\chi^2= 5.84$ (df=1), $p=0.0156$).

Complex lexical units thus appear to play a minor role in affecting the quantitative results of this investigation. Moreover, compilation of statistics which include both word classes as identified by CLAWS and complex lexical units as identified manually through MIP would have been exceedingly time-consuming and error-prone due to the composition of my database which prohibits automatic recall of such figures. Added to the mix is the diminished reliability involved in identifying complex lexical units. As a result, simple and complex lexical units are conflated in the ensuing discussion, which is thus based on the figures shown in Table 9.

5.3 Interaction between metaphor, word class and L1

As already discussed, the difference between the ratio of MRWs to non-MRWs in NICLE and LOCNESS, presented in terms of actual frequencies in Table 9, is statistically significant at the level of $p=0.05$. The data providing the basis for this claim are the overall numbers of identified metaphors in the two corpora, as compared with the total number of words investigated. Hidden within this data, however, lies a great deal of information which can be teased apart to provide a more nuanced portrait of the differences between the British English and Norwegian L2 English in the texts under examination. In this section, I follow in the footsteps of Steen et al. (2009), who expressly note that the overall frequencies of MRWs and non-MRWs in the corpora are actually the sums of the frequencies of these words as they are distributed across eight major word classes. As each word class may affect the overall distribution of metaphorically related words in different ways, it is thus worthwhile to investigate the relationship between word class, metaphor, and L1.

5.3.1 The eight major word classes

All individual word elements in the texts were annotated by CLAWS with one of 57 POS tags. These tags fall into eight major word classes: adjectives (Adj), adverbs (Adv), conjunctions (Conj), determiners (Det), nouns (Noun), prepositions (Prep), verbs (Verb), and a “rest” category (Rest). A full list of the CLAWS POS tags that comprise each word class is found in Table 34 in the appendix, complete with the brief description and illustrative example of each tag provided in the online BNC manual.⁶⁵ These eight categories are presumably comparable to those discussed by Steen et al. (2009, also Steen et al. in press-b), as both studies employed the same automated tagging system.

Although the various word class categories appear to be more or less self-explanatory, some features are nevertheless worthwhile noting. First, judging by the POS

⁶⁵ <http://kwicfinder.com/BNC/POScodes.html>.

tags, CLAWS distinguishes between determiners (possessive determiners [DPS], general determiners [DT0], *wh*-determiners [DTQ] and articles [AT0]). Following Hasselgård et al. (1998: 109-124) who maintain that articles are one of five main groups of determiners, I make no such distinction and therefore conflate articles with the category of determiners. Further, in the categorization of MRWs according to degree of conventionality, I divide the identified metaphors into lexical and function words (see section 5.4). All adjectives, adverbs, and nouns fall into the category of lexical words whereas all determiners, prepositions, and units in the rest category are function words. Adverbs, however, are a mixed bag. While general adverbs (AV0) such as *often* and *well* are lexical words, both adverb particles (AVP) and *wh*-adverbs (AVQ) are function words.

Finally, the rest category includes all items annotated by a POS tag that does not readily fall into one of the standard word classes. These items include numerals, pronouns, interjections, alphabetical symbols, the negator *not*, the existential *there*, the infinitive marker *to*, and items which do not appear in the standard English lexicon. Note that the tag for this last group (UNC) is employed sparingly, appearing only 13 times in my data despite the occurrence of numerous morphological mistakes and/or Norwegian terms. Thus, CLAWS seems to be robust in the sense that it usually manages to fit terms into a word class rather than automatically assign the UNC code when unfamiliar words are encountered.

Table 11 presents an overview of the two-way relationship between word class and L1, temporarily leaving metaphor out of the picture. The observed counts of units for each of the eight major word classes are presented, together with the percentages which those occurrences represent within each corpus. Table 11 also presents the chi-squared and probability results calculated per word class, based on the differences between the two corpora in the ratios of the occurrences of tokens of each particular word class compared to the total number of words in each corpus. The chi-square figures, calculated based on the ratios between the individual POS counts for each word class and the remaining words, indicates that the word classes behave very differently in the two corpora. In sum, adjectives, determiners, prepositions, and nouns are found in significantly greater frequency in LOCNESS, whereas there are significantly more adverbs, conjunctions, and the rest category in NICLE. Only verbs reveal no significant differences in terms of frequency.

Table 11: Distribution of lexical units by word class in NICLE and LOCNESS

POS	NICLE		LOCNESS		Significance	p-level	Interpretation
	count	%	count	%			
Adjective	1220	5.90%	1599	7.90%	$\chi^2 = 63.66$ (df=1), p=0.0000	p<0.0001	highly significant
Adverb	1692	8.18%	1375	6.79%	$\chi^2 = 25.25$ (df=1), p=0.0000	p<0.0001	highly significant
Conjunction	1817	8.79%	1384	6.84%	$\chi^2 = 54.02$ (df=1), p=0.0000	p<0.0001	highly significant
Determiner	2698	13.05%	2872	14.19%	$\chi^2 = 11.77$ (df=1), p=0.0006	p>0.001	very significant
Noun	4224	20.43%	4586	22.65%	$\chi^2 = 29.95$ (df=1), p=0.0000	p<0.0001	highly significant
Preposition	1847	8.93%	1954	9.65%	$\chi^2 = 6.28$ (df=1), p=0.0122	p<0.05	significant
Verb	4385	21.21%	4354	21.51%	$\chi^2 = 0.55$ (df=1), p=0.4599	p>0.05	not significant
Rest	2792	13.50%	2119	10.47%	$\chi^2 = 67.22$ (df=1), p=0.0000	p<0.0001	highly significant
TOTAL	20675		20243				

A visual presentation of the relative frequency of the eight words classes in the two corpora is provided in the histogram in Figure 3. In terms of relative frequency, the most frequent word class in NICLE is verbs (21.21%) which appear just slightly more often than nouns (20.43%). Verbs (21.51%) and nouns (22.65%) are also the two most common word classes in LOCNESS, albeit in the inverse order. In both corpora, determiners are the third most frequent class. These top three word classes of nouns, verbs, and determiners alone account for more than 50% of all the lexical units in both corpora. Also of note is that the primary cause for the significant discrepancy in the comparative frequency of the rest category in NICLE and LOCNESS lies in the distribution of pronouns in the two corpora. As seen in Table 11, there are a total of 2792 tokens of the rest category in NICLE, amounting to 13.50% of the NICLE corpus. There are far fewer such instantiations in LOCNESS, with only 2119 tokens comprising 10.47% of the corpus. In the NICLE rest category, however, pronouns – tagged by CLAWS as indefinite pronouns, personal pronouns (including possessive pronouns), *wh*-pronouns, or reflexive pronouns – account for 1530 occurrences as opposed to only 917 such occurrences in LOCNESS.

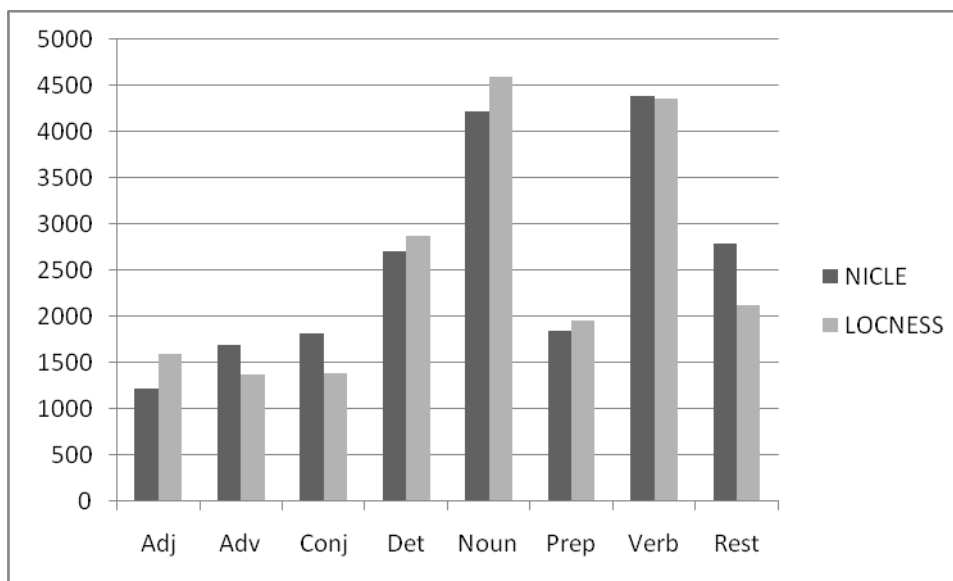


Figure 3: Number of lexical units, divided by main class and corpus

In both corpora, the majority of the pronouns are personal pronouns (1293 in NICLE and 755 in LOCNESS), although here too there is a noticeable difference in usage. Specifically, closer examination of the frequency in each corpus of the first and second person singular and plural pronouns, namely *I/me/my*, *you/your*, and *we/us/our*, reveals that all of them appear far more frequently in NICLE than in LOCNESS (243/125/384 NICLE instances versus 84/31/78 LOCNESS instances), a finding paralleled in Granger and Rayson's word category comparison of the French ICLE corpus with LOCNESS (Granger and Rayson 1998: 126). Although further exploration of this observation falls outside the scope of this study because it has little relevance to metaphor, it might prove interesting to investigate at some point in light of research concerning the visibility of writer and reader in comparative studies of L1 and L2 writing (see e.g. Hyland 2001, 2002, Petch-Tyson 1998). In any case, if pronouns are disregarded, the figures for the rest category decrease to 1062 in NICLE and 1008 in LOCNESS, a difference not statistically significant ($\chi^2 = 0.14$ (df=1), $p=0.7062$).

5.3.2 Word class, metaphor, and L1

Table 12 gives an overview of the observed frequencies of MRWs, non-MRWs, and DFMAs in NICLE and LOCNESS, divided by word class. In addition, percentages indicating the MRW to non-MRW ratio per word class and corpus are given to allow for easier comparison between corpora.

Table 12: Observed frequency of MRWs, Non-MRWs and DFMA, divided by word class and corpus, with horizontal percentages

POS	NICLE				LOCNESS			
	MRW	Non-MRW	DFMA	Total	MRW	Non-MRW	DFMA	Total
Adjective	228 (18.7%)	992 (81.3%)	0	1220	165 (10.3%)	1432 (89.6%)	2	1599
Adverb	179 (10.6%)	1513 (89.4%)	0	1692	130 (9.5%)	1244 (90.3%)	1	1375
Conjunction	20 (1.1%)	1797 (98.9%)	0	1817	21 (1.5%)	1362 (98.4%)	1	1384
Determiner	168 (6.2%)	2530 (93.8%)	0	2698	232 (8.1%)	2640 (91.9%)	0	2872
Noun	678 (16.1%)	3546 (83.9%)	0	4224	475 (10.36%)	4103 (89.47%)	8	4586
Preposition	1369 (74.1%)	478 (25.9%)	0	1847	1487 (76.1%)	467 (23.9%)	0	1954
Verb	999 (22.8%)	3386 (76.2%)	0	4385	866 (19.9%)	3483 (80.0%)	5	4354
Rest	36 (1.3%)	2761 (98.9%)	0	2792	25 (1.2%)	2059 (97.1%)	35	2119
Total	3677	16997	0	20675	3401	16790	52	20243

Even a superficial glance at the figures in Table 12 shows that both corpora contain metaphorically related words belonging to each of the eight word classes. Specific instances for each word class are illustrated by the underlined terms in sentences (21) through (36).

Adjective:

(21) Imagination has always been a way to escape from hard lives and problems. ICLE-NO-AG-0007.1

(22) This could lead to high unemployment. ICLE-ALEV-0008.6

Adverb:

(23) I have analysed my day and found that it is deeply influenced by the scientific development in the last century. ICLE-NO-BU-0003.1

(24) It is a decision not to be taken lightly... ICLE-ALEV-0004.8

Conjunction:

(25) The fact that we live in such a materialistic society, where we do not only want, but also have a great deal of material objects, might possibly diminish the need of dreams and fancies in a similar way. ICLE-NO-BE-0010.1

(26) The real question is where the line is drawn between a flawed personality and an individual personality. ICLE-ALEV-0011.8

Determiner:

(27) In my opinion, no, and I will do my very best to defend this point of view in the next page or so. ICLE-NO-HB-0002.1

(28) All of these considerations are continually growing more important as people look to science, almost as a new religion. ICLE-ALEV-0011.8

Noun:

- (29) Art and culture are important ingredients in the people of today's lives. ICLE-NO-HO-0029.1
(30) Genetic manipulation and gene technology is a vast field of study... ICLE-ALEV-0012.8

Preposition:

- (31) It is about imaginary future developments in science and their effects on life ICLE-NO-BE-0015.1
(32) There are obviously many moral dilemmas for and against this issue. ICLE-ALEV-0007.8

Verb:

- (33) They have an amazing ability to actually capture their thoughts... ICLE-NO-AG-0016.1
(34) Dr Hamer's results were reached by flawed methods, or by deliberate lies. ICLE-ALEV-0011.8

Rest:

- (35) Would not this give you the courage to go for your next dream or make the first one even better? ICLE-NO-AC-0011.1
(36) ... some specialisation is the next logical step. ICLE-ALEV-0028.8

It is also immediately apparent from the figures presented in Table 12, however, that there is considerable variation across word classes for metaphoricity in terms of frequency, which shows that the individual word classes add significantly different contributions to the total figures for MRWs and non-MRWs in NICLE and LOCNESS. There appears to be a rank order of word classes in which metaphor is favored that is almost identical across L1. First, the majority of prepositions in both corpora are metaphorically used words, something unique to this word class as the seven other word classes all contain fewer MRWs than non-MRWs. Verbs are the word class that contain the next highest proportion of MRWs, averaging 21.3% in the combined total of both corpora, meaning that roughly 1 out of every 5 verbs is metaphorically used. In NICLE, adjectives and then nouns are the next two word classes with the highest percentage of metaphors, at 18.7% and 16.1% respectively. The order in LOCNESS is reversed, such that nouns are the word class with the third-highest proportion of MRWs (10.4%), followed by adjectives at 10.3%. After that, both corpora show the same order of ranking of word class according to metaphoricity: adverbs, determiners, conjunctions, and the rest category, in descending order. The final rest category has hardly any metaphorical tokens in either corpus. In sum, some word class categories favor metaphorical usage more than others, with prepositions topping the list.

In terms of absolute numbers, my data contains more metaphorical prepositions than metaphorical tokens of any other word class. Roughly 10% of all words are prepositions, and approximately 75% of this 10% are metaphorical in use. Verbs and nouns constitute the two word classes with the next highest actual count of MRWs, even though a lower proportion of the total instances are metaphorically employed. The high absolute figures are the result of the relative frequencies of these word classes overall. Specifically, slightly

more than 40% of the total number of words investigated was a verb or noun, roughly split between the two classes. Such relatively high absolute numbers of metaphorical verbs and nouns, together with the fact that they are lexical words which carry the bulk of the message's content, may greatly increase their salience for the recipient. This, in turn, helps explain the extreme focus which philosophers of language, for example, place on them when discussing metaphor, even though the link between prepositions and metaphor is much stronger in proportional terms.

The relative proportions in the two corpora of MRWs and non-MRWs across word class are visually portrayed in the histograms in Figure 4 and Figure 5. They are mirror images of each other, where Figure 4 presents the comparison of MRWs and Figure 5 compares non-MRWs. To facilitate comparison, frequency is measured here in terms of percentages of the total number of words examined in NICLE and LOCNESS, rather than in terms of the observed token count. The visual comparison of the two figures highlights some of the facts already touched upon. Although metaphor is ubiquitous in language, non-metaphorical language predominates. Prepositions constitute the exception that proves the rule, being the sole word class in which MRWs are more frequent than non-MRWs. Apart from prepositions, verbs lie at the one extreme of favoring metaphorical usage, and the rest category at the other extreme. In addition, certain differences between the two corpora are evident. Otherwise, the exact degree of the predominance of non-metaphorical language varies heavily according to word class.

Within the classes of function words, only determiners display a statistically significant difference. Here, there are more metaphorically related determiners in LOCNESS than in NICLE ($\chi^2=7.15$ (df=1), $p=0.0075$). This particular difference seems to result purely from difference in topic, rather than from any factor related directly to metaphor. The vast majority of the metaphorical determiners are tagged by CLAWS as general determiners (DT0), a part of speech present in almost equal numbers in the two corpora, with 696 occurrences in NICLE and 693 in LOCNESS. Specifically, they are the lexemes *this*, *that*, *these*, or *those* when preceding a noun, a position which distinguishes them from their pronominal usage. As discussed in section 4.5.7.2, such determiners are judged to be linguistic metaphors when appearing in conjunction with nouns representing abstract concepts, such that for instance the determiner in *this time* is an MRW, but the determiner in *this book* is not related to metaphor. Metaphorical usage of determiners is therefore highly topic-sensitive because of their deictic nature, meaning that the metaphoricity of determiners can only be analyzed with respect to their referents.

Determiners are highly schematic, in that their choice is dictated by the one's need to express the referential concept they encode.

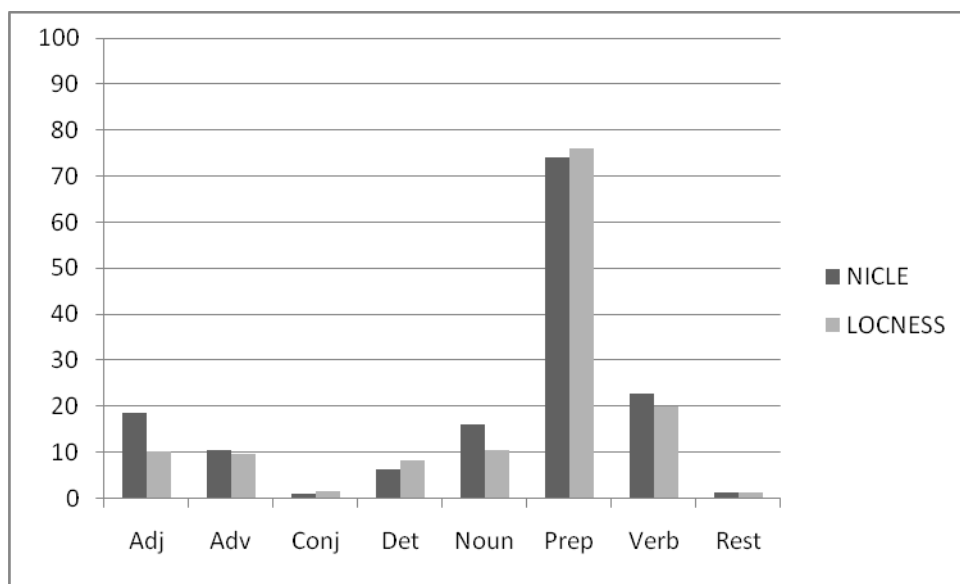


Figure 4: MRWs as a function of word class and corpus, presented in percentages

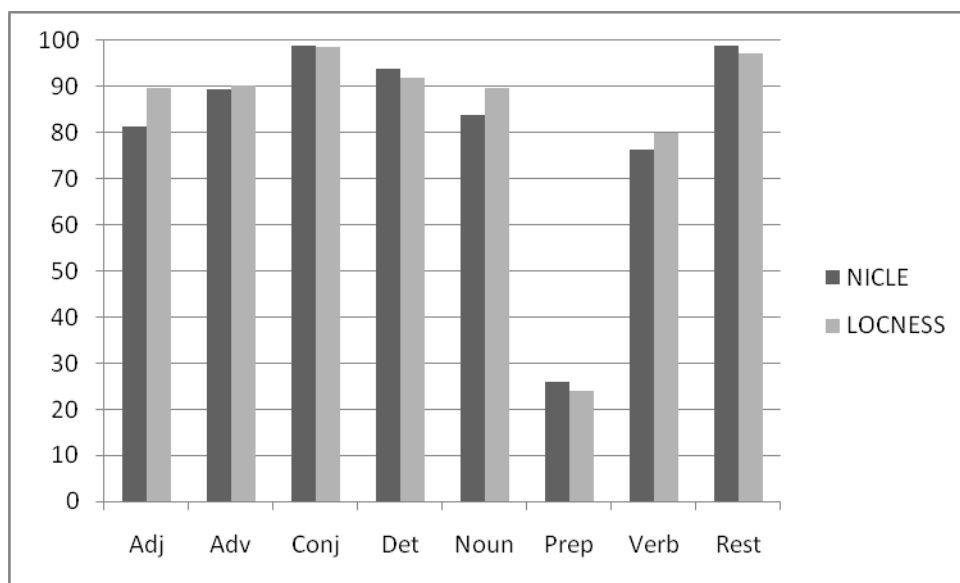


Figure 5: Non-MRWs as a function of word class and corpus, presented in percentages

When it comes to the lexical classes, adjectives, nouns, and verbs all demonstrate significantly different behaviors in the two corpora, in that there are more MRWS in all three classes in NICLE than in LOCNESS ($\chi^2= 40.23$ (df=1), $p=0.0000$ for adjectives, $\chi^2= 62.16$ (df=1), $p=0.0000$ for nouns, and $\chi^2= 10.71$ (df=1), $p=0.0011$ for verbs). There is, however, no such statistically significant difference in the metaphorical patterns of the fourth lexical class, adverbs, even when uses related to adverb particles (AVP) are and *wh*-adverbs (AVQ) are disregarded. Examination of the actual incidences of metaphorically used adjectives in the two corpora shows that the 228 such instantiations in NICLE are

divided by 97 types. Of these, 29 types are represented by more than one token. The 165 metaphorically used adjectives in LOCNESS represent 63 types, where 23 types occur more than once. Put another way, there are 68 adjectives in NICLE which occur only once in a metaphorical sense, whereas there are only 40 such single cases of metaphorically used adjectives in LOCNESS. The lower type-token ratio in this regard provides a possible indication of a richer vocabulary use on the part of the NICLE writers. Further investigation, however, would be required to verify this point.

5.3.2.1 *Bridge metaphors*

The statistical differences in the number of metaphorically used nouns and verbs, however, may be accounted for by the higher numbers of bridge metaphors in the NICLE material. This metaphor type was discussed in section 2.4.2.1, where Kennedy's quip playing on the metaphorical and literal senses of *shadow* was used as an illustration. Examples of this type of "prototypical" bridge metaphor discussed (albeit rarely) in the literature are found in my data. However, whereas Kennedy's spoken play on words caused listeners to reappraise a previous interpretation, the ambiguity offered by bridge terms in NICLE prompts two near-simultaneous possible interpretations. By way of example, consider the sentence from NICLE reproduced in (37).

(37) Perchance it is necessary to walk upon a balanced path with commonsense and ordered farmland on one side, irrationality and mysterious wilderness on the other. ICLE-NO-AG-0017.1

Here the words *walk*, *upon*, and *path* may be understood literally when paired with *farmland* and *wilderness*. At the same time, however, they may also be interpreted metaphorically taken in conjunction with the expressions *common sense* and *irrationality*, an instantiation of the LIFE IS A JOURNEY conceptual metaphor.

The extended analogical nature of this image would indicate that these bridge metaphors were deliberately chosen by the writer.⁶⁶ Bridge metaphors may, however, also be unintentionally produced, as is arguably the case in (38).

(38) Prehistoric man selected plants and animals which he could use and fed them, this allowed these plants/animals to survive and reproduce. ICLE ALEV.0022.8

MED conflates the feeding of animals/people and plants under a single entry. LM, however, separates the feeding of animals/people from the nourishing of plants into two distinct entries. The feeding of plants is thus metaphorical in use according to MIP. Here, however,

⁶⁶ See section 6.3.1 for a definition of deliberate metaphor and suggested ways of identifying them. Note that although these metaphors are deliberate, they are conventional rather than novel metaphors, thereby providing examples of deliberate use of conventionalized language.

fed includes a dual reference to animals and people. This makes it a bridge term here, but most likely results from faulty parallelism rather than deliberation on the part of the writer. It can thus be viewed as one step removed from the prototypical bridge metaphor.

Taking a further step away from the prototype, we find another type of lexical item which shares the same possibility of dual interpretation. Such words are identified through MIP as possibly metaphorical because standard dictionaries codify a basic sense which relates to concrete entities and an extended metaphorical sense relating to abstract entities, while the actual context does not allow for the possibility of distinguishing the writer's intended meaning. An example is the lexeme *thing*, whose basic sense is its most concrete meaning, MED1: "an object or an ITEM." Illustrative sentences show that said items are concrete. *Thing* has a variety of metaphorical extensions instantiating a concrete to abstract mapping, such as MED5: "an aspect of life" and MED6: "an idea, a comment, or a piece of information." The very broad nature of this term, however, is such that it allows one to avoid specification, thus affording a means of combining a variety of concepts into one umbrella term. An example is presented in (39), where the writer is discussing the importance of studying a wide variety of college subjects.

(39) For this reason I think combined courses are a good thing. ICLE-ALEV-0028.8

The precise anaphoric reference of *thing* is here left to the reader, the two most obvious potential alternatives being the idea of studying or offering combined courses (abstract: "the idea of combined courses is a good thing") or the courses themselves (concrete: "the combined courses are good things"). Appeal to the ambiguity inherent in such a term may sometimes be deliberate, offering a convenient escape to cover the writer's own ignorance, and/or permitting the writer to place the burden of interpretation on the reader.

The analysis of my material shows 350 bridge metaphors in NICLE and 36 in LOCNESS. Thus, 9.5% of the NICLE MRWs are bridge terms, as opposed to only 1.1% of the LOCNESS MRWs. Of these 350 bridge metaphors in NICLE, 185 are nouns and 147 are verbs, as opposed to 10 nominal and 22 verbal bridge metaphors in LOCNESS. These numbers are sufficient to trigger the statistically significant differences between the occurrences of nominal and verbal MRWs and non-MRWs in the two corpora. I attribute this substantial difference to two factors unrelated to metaphor per se, as the least prototypical type is in the clear majority.

One explanation for the greater frequency of bridge metaphors in NICLE concerns topic choice. The Norwegian writers were specifically asked to write about whether there is room for dreaming and imagination in our modern world. This topic necessarily triggered

the frequent use of both nominal and verbal forms of the lexeme *dream*, found a total of 292 times in NICLE as compared to only twice in LOCNESS. The distinction between the basic sense of what one experiences when sleeping (MED1) and the metaphorical extension concerning what one hopes or fantasizes about (MED2) is one most NICLE writers overlook, in that they never specify their precise understanding and use of the word. Upon encountering the word in such cases, the reader naturally gives it a certain interpretation, but that meaning is not openly supported by the actual text. Hence, 264 of the NICLE instantiations of the lexeme *dream* have been classified as bridge terms. Few writers explicitly discuss and define their use of *dream*, thereby avoiding the ambiguity which the word frequently affords, a strategy of explicitation which is evident in (40).

(40) There are two ways of dreaming. You can either dream while you are asleep or while you are awake. [...] In my essay I will focus on the dreaming you can only do while you are awake.
ICLE-NO-BE-0015.1

The second factor involved concerns the area of lexical “teddy bears” in L2 learner language, i.e. the noted tendency for L2 learners to overuse certain familiar, common terms relative to the frequency with which such terms are employed by L1 writers. These terms also tend to encompass a very general meaning, allowing the writer to refer to something without requiring a more specific term which might be restricted in conventional collocation, topic, and/or register (see Hasselgren 1994). In my material, for instance, the lexeme *thing* appears 91 times in NICLE, 38 of which have been classified as bridge metaphors due to their contextual ambiguity. By contrast, the lexeme is employed only 17 times by the LOCNESS writers, a figure which includes 5 bridge metaphors. The heightened tendency among the NICLE students to refer to *things* rather than anything more closely specified serves to increase the difference between the numbers of identified bridge metaphors in the two corpora.

5.4 MRWs and degree of conventionality

After having identified all metaphorically related words in NICLE and LOCNESS, each MRW was then classified according to its degree of conventionality. As discussed in section 3.5, this study operates with four main categories of conventionality, two primary categories for lexical words and two parallel categories for function words. *Entrenched* and *novel* metaphors refer to lexical word classes of general adverbs, adjectives, nouns and lexical verbs. Entrenched lexical metaphors, in turn, encompass two subtypes, *dead* and *conventional*, distinguished on the basis of the underlying conceptual mappings involved. *Function entrenched* and *function novel* classify function words such as determiners,

pronouns, prepositions and adverb particles. Table 13 presents an overview of the findings, including the observed count of instances of each conventionality classification in NICLE, LOCNESS and in the total data, together with these same figures expressed as percentages based on the total of actual tokens in the two corpora and taken as a whole.

Table 13: Overview of MRWs, as a function of degree of conventionality and corpus, with vertical percentages

			NICLE (20675 total words)		LOCNESS (20243 total words)		NICLE + LOCNESS (40918 total words)	
			Observed	%	Observed	%	Observed	%
Lexical words	Entrenched	Dead	66	1.79%	163	4.79%	229	3.24%
		Conventional	1845	50.18%	1371	40.31%		
	Novel	95	2.58%	54	1.59%	153	2.160%	
Function words	Entrenched		1586	43.13%	1774	52.16%		
	Novel		85	2.31%	39	1.15%	125	1.77%
Total			3677		3401		7067	

The bulk of the identified linguistic metaphors in both corpora is comprised, perhaps not surprisingly, of conventional metaphors. By way of example, each of the linguistic metaphors underlined in items (21) through (36) has been classified as a conventional metaphor where the contextual sense, codified in the standard English lexicon, can be understood through comparison with a contemporary basic sense. For example, the contextual sense of the noun *ingredients* in (29) is MED2: “one of the things that give something its character or that make it effective.” This is a figurative extension from the basic sense of MED1: “one of the foods or liquids that you use in making a particular meal.” This ostensibly represents a linguistic encoding of the mapping between the two separate domains of life and cooking, with the underlying conceptual metaphor LIFE IS A RECIPE.

Ideally, it would be desirable to divide this large group in some way to facilitate more detailed investigation. The 16 sentences from my data quoted here appear to support the hypothesis that some conventional metaphors convey more metaphorical “force” than others. The noun *ingredients*, for instance, is more obviously metaphorical than is the ordinal *next* in (35) and (36).⁶⁷ Goatly notes the same phenomenon and argues that “adverbial and prepositional V-terms are generally less recognizable as metaphors and less forceful than verbal and adjectival V-terms, and these in turn are less forceful than noun-based ones” (Goatly 1997: 83). In general, he suggests a more refined scale of metaphor conventionality which includes his proposed sub-classification of conventional metaphors as

⁶⁷ The lexeme *next* in (35) and (36) ostensibly involves a cross-domain mapping between space (as in *the next room*) to time (as in *the next day/event*), both of which are listed as individual sense entries in contemporary English dictionaries. The term *force* is borrowed from Goatly.

sleeping or *tired* (discussed in section 2.4.4). Yet although he offers some examples of each metaphor type and proposes several tests to establish degree of conventionality, he has not managed to come up with a watertight means of categorization, partially as a consequence of the fuzzy borders between conventionality levels. Even his postulated hierarchy when it comes to recognizability and forcefulness of the metaphoricity of items in the various word classes is subjective, depending upon the criteria of vitality and individual consciousness of metaphor rather than strict linguistic criteria.⁶⁸

Indeed, any scale involving gradients of conventionality involves the implicit assumption that allocation of actual tokens to their appropriate category on a cline can be carried out in precise, valid, and consistent ways. This is Steen's primary rationale for utilizing a nominal scale (yes/no/don't know) to judge metaphoricity by MIP, despite objections stemming from the ostensible gradability of metaphoricity. He makes two points, both of which apply to a scale of conventionality as well. First, distribution of such phenomena into nominal categories can nevertheless prove useful, and is not meant as a denial that the phenomena are in reality more nuanced. Second, "if fine-grained scales of measurement are preferred, they have to be applicable across the board with a demonstrably identical degree of precision and reliability which is a claim that cannot realistically be defended given the complexity of the data and the fuzziness of most theories" (Steen et al. 2006: 93).

There are far more dead metaphors registered in LOCNESS than in NICLE, and topic choice provides a convincing explanation for the apparent underuse of dead metaphors in NICLE. Deignan, for example, shows that metaphor does not appear in a vacuum, but is a textual phenomenon (Deignan 2008). Topic is thus one important factor affecting metaphor choice, a claim further supported by corpus-based evidence reported in investigations such as Golden's (forthcoming) study of Norwegian L2 English in the ASK corpus and Chapetón's (2009) study of personification in the Spanish component of ICLE.⁶⁹ In my data, the majority of the dead metaphors in LOCNESS consist of repeated use of words related to the topic "In vitro fertilization – genetic manipulation" or to "Computers and the human brain."

By way of example, there are 37 dead metaphors which are tokens of the lexeme *engineering*, employed in the context of genetic manipulation. The Macmillan dictionary

⁶⁸ These are criteria which Müller separates (see section 2.4.4) and which are also separated in the present investigation (see section 3.5).

⁶⁹ The ASK corpus is the Norwegian second language corpus (Norsk andrespråkskorpus) collected at the University of Bergen, Norway. It may be found here: <http://www.ask.uib.no/>.

has only a single entry for the noun: “the activity of designing things such as roads, railways, bridges, or machines.” Generally, a single entry precludes the possibility of conventionalized metaphorical extensions, as determination of metaphoricity requires the comparison of two entries, one basic and the other contextual. MED’s stated examples of things which can be designed, however, include only man-made constructs which seem a far cry from the semantic domain which includes living (human) tissue. Consultation of Longman also reveals only one entry for engineering, this time where the “designing and building” is exemplified by “road, bridges, machines, etc.” That the “etcetera” does not, however, include plants or animals is implied by the LM recommendation to “see also *genetic engineering*,” defined as “the science of changing the genetic structure of an animal, plant, or human, usually to make them stronger or healthier.” There thus seems to be enough difference to regard the contextual use of *engineering* as a dead metaphor because both source domain (construction) and target domain (genetic structure) are concrete. That said, the frequent employment of the term *engineering* must be the result of the topic prompts. Similarly, employment of various terms such as *mouse* and *keyboard* - also dead metaphors according to the concrete to concrete mapping test- are hardly avoidable in texts that center on the topic of computers.

It will be recalled from section 3.5 that the rationale for the division of entrenched metaphors into dead and conventional metaphors rests on Deignan’s claims concerning the degree of dependence between the core sense and the contextual sense. Abstract to concrete mappings produce conventional metaphors (when the contextual sense is conventionalized rather than novel) due to the psychological coreness of a concrete vehicle over an abstract topic. Concrete to concrete mappings, she argues, produce dead metaphors because the two concrete senses are perceived as equally core. Further, even newly-coined metaphors which result from concrete to concrete mappings will rapidly evolve into dead metaphors. Although the different types of mapping do allow one to systematically differentiate two different degrees of entrenched metaphors, such an argument does not always seem intuitively satisfying. For example, the metaphoricity of many metaphorical expressions involving computer terms such as *mouse* and *keyboard* still seems alive and well, in that many speakers still sense a connection, however distant, between the basic and metaphorical senses (see for example Dąbrowska 2004: 154). Although Deignan claims that such metaphors are or soon will become dead for most speakers, surely the researcher cannot prejudge this development. For this reason, dead metaphor and conventional metaphor will hereafter be conflated to the single category of *entrenched* from which they are derived.

Another way of approaching the data is to collate all instances of entrenched metaphors – both lexical and function words – and compare these figures to the corresponding numbers for novel metaphors. These figures are presented in Table 14.⁷⁰

Table 14: Observed frequencies of entrenched and novel metaphors in NICLE and LOCNESS

		NICLE (20675 total words)	LOCNESS (20243 total words)
Entrenched	Lexical words	1911	1534
	Function words	1586	1774
	Subtotal	3497	3308
Novel	Lexical words	95	54
	Function words	85	39
	Subtotal	180	93

In NICLE, there are a total of 3497 instances of entrenched metaphors, as opposed to 180 novel instances. Put another way, approximately 95% of the NICLE metaphors are entrenched and 5% are novel. By contrast, LOCNESS contains both fewer entrenched and novel metaphors, 3308 and 93 respectively. These observed frequencies correspond to roughly 97% entrenched metaphors and 3% novel metaphors in that corpus. The difference between the two corpora is highly significant ($\chi^2 = 22.25$ (df=1), $p=0.0000$). On the whole, metaphorical language in both corpora is highly entrenched. Nevertheless, novel metaphor, while relatively rare in both varieties, is almost twice as frequent in the Norwegian L2 English. The significant differences in novel metaphor frequency appear to be due to the ratio between the entrenched and novel function words rather than the lexical words. Specifically, given that there are more entrenched lexical metaphors in NICLE, the number of novel lexical metaphors is not unexpectedly high when compared with the corresponding LOCNESS figures. The difference in the ratio of entrenched and novel lexical metaphors in the two corpora is not statistically significant ($\chi^2 = 3.88$ (df=1), $p=0.0488$). The ratio of entrenched and novel function words in the two corpora, by contrast, shows statistically significant differences at the level of $p=0.0005$ ($\chi^2 = 23.55$ (df=1), $p=0.0000$). All told, there are 1663 metaphorical function words in NICLE, of which 94.8% are entrenched and 5.2%

⁷⁰ As explained in section 5.3.1, the category of adverbs is divided between lexical words (with the POS tag AV0) and function words (AVP and AVQ). As a consequence, the figures listed for metaphorically used adverbs from Table 13 are divided between the lexical and function classes. Of the 179 NICLE metaphorical adverbs, 101 are lexical words and 78 are function words. Of the 130 LOCNESS metaphorical adverbs, 82 are lexical words and 48 are function words.

are novel. In LOCNESS, there are 1813 metaphorical function words; 97.8% are entrenched and 2.2% are novel. In other words, if one uses the LOCNESS data as a benchmark, there are too many novel metaphorical function words in NICLE, given the observed frequency of entrenched function words.

5.4.1 Word class, degree of conventionality, and L1

Table 15 presents an overview of the observed frequencies of MRWs in NICLE and LOCNESS as a function of word class and degree of conventionality.

Table 15: Observed frequencies of MRWs as a function of corpus, degree of conventionality, and word class, with vertical percentages.

	NICLE				LOCNESS			
	Entrenched (Lexical + Functional)		Novel (Lexical + Functional)		Entrenched (Lexical + Functional)		Novel (Lexical + Functional)	
	Observed	%	Observed	%	Observed	%	Observed	%
Adj	212	6.07%	16	8.79%	162	4.90%	3	3.13%
Adv	173	4.95%	6	3.30%	126	3.81%	4	4.12%
Conj	20	0.57%	0	0	19	0.88%	2	2.08%
Det	168	4.80%	0	0	230	6.96%	2	2.08%
Noun	652	18.65%	26	14.36%	460	13.90%	15	16.13%
Prep	1299	37.15%	70	38.89%	1465	44.32%	22	22.92%
Verb	949	27.15%	50	27.47%	831	25.12%	35	37.63%
Rest	24	0.69%	12	6.59%	15	0.45%	10	10.42%
Total	3497		180		3308		93	

Percentages here are calculated on the basis of column totals, such that they represent the ratio of the tokens for a particular word class as a proportion of the total number of tokens found for a particular degree of conventionality and corpus. Thus, for example, we can see that roughly 37% of all entrenched metaphorically related words in NICLE are prepositions, as opposed to slightly more than 44% in LOCNESS.

As regards lexical words, it has already been established from the figures in Table 14 that there is no statistically significant distinction in the overall ratio of entrenched and novel lexical metaphors in the two corpora. Nevertheless, statistical tests performed on the data for the individual word classes presented in Table 15 reveals one statistically significant difference, namely with respect to the ratio of entrenched and novel metaphorical adjectives in the two corpora, where the Fisher's Exact *p*-value is calculated at 0.0133. This indicates a comparative overuse of novel metaphorically used adjectives in NICLE, a distinction lost in the total figures for metaphorical lexical words. This relative overuse may result from the wider overall type variation of metaphorical adjectives in NICLE, something discussed on page 150. Greater lexical variation, perhaps due to risk-taking in lexical

choice, leads to a correspondingly higher risk of infelicitous use, cases which are sometimes analyzed as novel metaphorical usage (see chapter 6).

With respect to function words, the information presented in Table 14 indicates that there is a higher observed frequency of novel function words in NICLE than in LOCNESS than the null hypothesis would lead one to expect. Prepositions contribute the most novel MRWs in both corpora. The difference in the ratios of entrenched and novel prepositions in NICLE and LOCNESS is highly significant ($\chi^2= 30.64$ (df=1), $p=0.0000$), whereas there is no such significant difference for any of the other function word classes. To sum up, the figures in Table 11 show us that there is a statistical difference between the overall numbers of prepositions employed in the two corpora, with fewer total prepositions in NICLE than in LOCNESS. The figures in Table 12 indicate that given these total preposition frequencies, there is no statistical difference in the ratio of MRWs to non-MRWs where prepositions in the two groups of texts are concerned. The figures in Table 15 facilitate a further level of analysis by investigating the degree of conventionality of the identified metaphorically related prepositions. These numbers indicate that even though there are fewer prepositions in the Norwegian material overall, there is nevertheless a relative overuse of novel metaphorical prepositions in NICLE.

5.5 Concluding remarks

To conclude this broad overview of the data, we see that the written English in NICLE and in LOCNESS share many characteristics in terms of linguistic metaphor. Most importantly, metaphorical language is ubiquitous in both, even though non-metaphorical language predominates. Moreover, there is considerable variation of metaphoricity across word class in both corpora, with the rank order of word classes favoring metaphorical language being more or less the same. For example, in both NICLE and LOCNESS the word class of prepositions clearly deviates from the seven other classes because it exhibits more metaphorically related language than non-metaphorical language. Furthermore, both NICLE and LOCNESS writers tend to adhere to conventional metaphorical language. In both corpora, the majority of the observed linguistic metaphors are entrenched rather than novel, roughly 95% in NICLE and 97% in LOCNESS.

Importance of text topic is another point touched upon several times. This is offered as an explanatory factor for the far more frequent occurrence of bridge metaphors in NICLE, the higher percentage of dead metaphors in LOCNESS, as well as the greater numbers of metaphorically used determiners in LOCNESS. Additional factors which

potentially affect the observed frequency of metaphor include a relative overuse both of so-called lexical teddy bears and of personal pronouns in the Norwegian L2 English.

Still, although the broad portraits of metaphoricity in the two corpora are in many respects similar, a number of significant differences have nevertheless come to light. Two of these stand out in particular. First, there is more metaphorical language in NICLE than in LOCNESS. In the Norwegian L2 English, roughly one in every five and a half words is metaphorical, whereas closer to one in every six words in the British A-level English is metaphorically used. Comparison of these figures with corresponding figures from the VU investigation of the BNC Baby (Steen et al. in press-b) suggests that there is even less metaphorical language in professional English. This point deserves further investigation.

Second, although most metaphorical language in both corpora is entrenched, there is a significantly higher degree of novel metaphor in the Norwegian L2 English. Specifically, almost 5% of the linguistic metaphors in NICLE are novel in their degree of conventionality, as opposed to only 3% of the linguistic metaphors in LOCNESS. The observed frequency of novel metaphors in NICLE is thus almost double that in LOCNESS. Closer examination of the composition of the two groups of novel metaphor shows that the primary contributing factor for this distinction is the relative overuse of novel metaphorical prepositions in the Norwegian L2 English, rather than metaphorical tokens of any other word class. This difference is discussed again in chapter 7.

A final point of consideration concerns one avenue for further research. One disadvantage of the chi-squared test is that it essentially treats each corpus as one text, rather than allowing for internal variation. It would thus be advantageous to apply additional statistical measures to my quantitative data to tease apart any important individual contributions to the differences established by the chi-squared tests, and thereby take corpus variation into greater account. Unfortunately, my database does not allow for easy recall of individualized data, so that this added investigation is too time-consuming for my study as it now stands, and must be put aside until later.

6 The novel lexical metaphors in NICLE and LOCNESS

6.1 Introduction

This chapter explores the novel metaphors identified in the NICLE and LOCNESS data which belong to the lexical word classes. It opens with a discussion in section 6.2 which provides background by detailing the justification typically given for focusing on novel metaphor as well as presenting an overview of the total number of observed metaphors found in my data. This is followed in section 6.3 by an explanation of the theoretical framework used to categorize the identified novel lexical metaphors according to their probable motivation, developed on the basis of previous research into deliberate metaphor and error classification. Three main categories of novel metaphors are outlined: *deliberate*, *non-deliberate*, and an *attribution* category. The discussion then turns in section 6.4 to the data, first presenting an overview of the observed frequency and type of novel lexical metaphors in the two corpora. This data is investigated in detail in the ensuing sections. In section 6.5, deliberate metaphors, grouped according to various subtypes, are discussed. Sections 6.6 through 6.8 look at the various types of non-deliberate metaphors, with the first two sections providing details about *inadvertent* metaphors. Specifically, section 6.6 examines *substance level errors* which relate to the morphological system of English (that is, various types of spelling errors or mistakes) and section 6.7 explores the *text level errors*, which relate to the lexico-grammatical system. Section 6.8 then turns to the subtype of non-deliberate metaphors best labelled as *non-conventionalized*. Section 6.9 discusses novel metaphor that can be traced to unattributed outside sources. Concluding remarks in section 6.10 close the chapter.

6.2 Background

Although the Conceptual Metaphor Theory holds that conventional metaphor is ubiquitous in language, it is actually novel metaphor which traditionally dominates discussions and studies about metaphor. As Cameron states, “In metaphor studies, strong, active poetic metaphors have commonly been placed at the centre of the category as prototypes” (Cameron 2003: 61). In the discourse of language philosophy, the terms *strong* and *active* are closely associated with novel metaphors, having gained prominence in Black’s writings on his interaction view of metaphor. According to Black, active metaphors are those “needing no artificial respiration” (Black 1993: 25), and as a consequence are the only type of metaphor worthy of study.

Such emphasis on the importance of novel metaphor would appear to have dual motivations. First, Müller explains that the dead/alive distinction “appears to be historically motivated by the interest of rhetoric in investigating the poetic and artful forms of language usage; and it is this specific historical focus that presumably stimulated [language philosophers] to concentrate on...those metaphors that are alive, transparent, conscious, and novel creations in poetic language” (Müller 2008: 185-186). This particular concern naturally extends to the field of education, for instance, where metaphor is typically presented as a literary device, exemplified in poetry and classical works of literature rather than as an intrinsic part of everyday discourse. By way of example, consider the following passage from the perspective of literary criticism:

Metaphor is analogous to fiction, because it floats a rival reality. If I compare the slates on a roof to an armadillo’s back [...], I am asking you to do what Conrad said fiction should make you do – *see*. I am asking you to imagine another dimension, to picture a likeness. Every metaphor or simile is a little explosion of fiction within the larger fiction of the novel or story. (Wood 2008: 202)

This potential for serving as a means of illumination is commonly viewed as being the preserve of the “good” metaphor, one that is especially effective in delineating one phenomenon in terms of another by highlighting a certain aspect which we might otherwise have missed in a particularly apt, perhaps startling manner. Ricoeur, for example, explains that “the conditions necessary for a good metaphor – realism, clarity, nobility, naturalness, coherence – ‘apply only to the *newly invented metaphors* that one intends as figures and that have not yet received the sanction of general use’” (Ricoeur 2003: 72, italics in the original). Alvesson and Sköldbberg add, “The better the metaphor, the more striking the correspondence [between two different phenomena]” (Alvesson and Sköldbberg 2009: 125). Hence, the quality of metaphors is measured primarily in terms of novelty.

Novel metaphors also generate the most interest because they are considered the most salient. Indeed, in claiming that innovative metaphors are prototypical, Goatly goes so far as to say that the phrase “conventional metaphor” is an oxymoron (Goatly 2009). Novel metaphors “defamiliarize the reader and provoke extra interpretative work” (Cameron 2003: 108). Philosophers have added that the potent metaphor produces endless alternative interpretations, while simultaneously being irreducible. As Cohen remarks, “If it is rich enough, then although it can be paraphrased and explicated, it will have no complete ‘translation’ – there will be no substitute which says all that it says without remainder” (Cohen 1976: 250). Such claims are based on an understanding of metaphor conventionality grounded in individual perceptions and awareness of metaphoricity rather than in metaphor

on a linguistic level. An implicit defining feature of novel metaphors thus typically relies upon degree of consciousness of metaphor.

Such focus on novel metaphors is somewhat ironic, given that they are anything but typical. Steen, for example, maintains that “99% of all metaphor in discourse appears to be conventional as opposed to novel” (Steen 2008b: 227). Based on the results from accumulated corpus-based studies, Deignan also maintains that novel metaphors are rare, and adds that as a consequence, they are “for the purposes of describing typical language use, unimportant” (Deignan 2005: 40). My data bears out the supposition that novel metaphor is rare, although it also indicates that Steen’s “99%” figure for conventional metaphor in discourse is too high, at least with respect to learner language, both in an L1 and an L2.

As described in chapter 5, I find that roughly 95% and 97% of the identified metaphors in NICLE and LOCNESS respectively are entrenched (either dead or conventional). Conversely, 4.90% and 2.73% of the metaphors are novel, as measured by the standards outlined in Table 1 in section 3.5.

Table 16: Overview of observed novel metaphor frequency in NICLE and LOCNESS

		NICLE	LOCNESS
Words investigated		20675	20243
Metaphor			
Entrenched & novel	Total	3677	3401
	Lexical words	2014	1588
	Function words	1663	1813
Novel only	Total	180	93
	Lexical words	95	54
	Function words	85	39

When frequency of novel metaphor is calculated on the basis of the entire number of words under investigation (both metaphorical and non-metaphorical), these percentages necessarily drop. Novel metaphors represent 0.87% of the 20675 NICLE words examined, and 0.46% of the 20243 LOCNESS words. Excluding function words from consideration yields much the same results. Specifically, there are 2014 metaphors encoded by lexical units (nouns, verbs, etc.) in NICLE, 95 (4.72%) of which are novel. Similarly, there are 1588 lexical

words in LOCNESS which are metaphorically used. Fifty-four of these, or 3.40%, are novel. The differences in the two corpora noted here are statistically significant ($\chi^2= 3.88$ (df=1), p=0.04885). These figures are collected in Table 16 for the sake of easy reference.

6.3 Theoretical framework

Examination of the novel lexical metaphors identified in NICLE and LOCNESS reveals that they generally fall into one of two main categories: those that are *deliberate* and those that are *non-deliberate*. A third category which sometimes explains the presence of novel metaphor concerns lack of *attribution*. The writer may have lifted the wording from someone else without marking that the wording is not original. These three categories are explained in the immediately subsequent subsections, allowing for the examination of my data in sections 6.5 through 6.8. A simplified version of the taxonomy utilized here to classify instantiations of novel metaphor is presented in Figure 6.

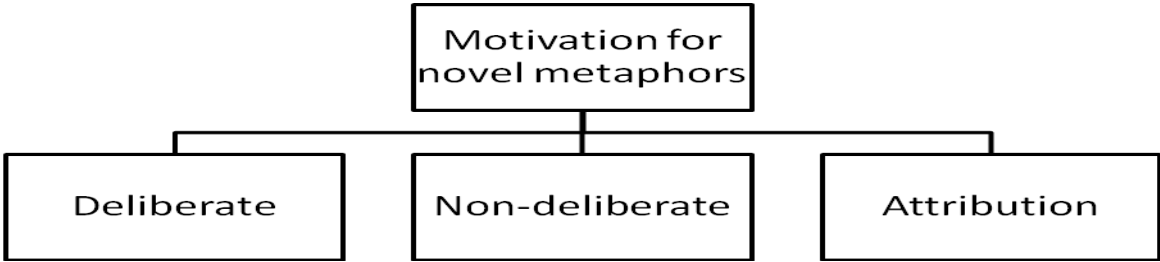


Figure 6: Basic overview for the motivations of novel metaphor

Novel metaphors are identified in the present study by the lack of codification of their contextual meaning in standard dictionaries of contemporary English. In such cases, one may question whether the writer was consciously trying to be creative, deliberately coining a new metaphorical twist on a known lexical item.

6.3.1 Deliberate metaphors

The phenomenon of novel metaphor is inextricably linked with that of deliberate metaphor. This type of metaphor instantiates what Steen (2008c) characterizes as a third dimension of metaphor in usage, namely metaphor in communication. He claims that this aspect has been more or less neglected by Conceptual Metaphor Theory, which has instead focused on the conceptual and linguistic dimensions of metaphor, i.e. metaphor in thought and language. Cameron, too, discusses metaphor from a discourse perspective, having observed that as she progressed with the examination of her material that “a key distinction became between

metaphors that seemed to be used deliberately and metaphors that occurred because that was ‘just the way to say it’, which I termed ‘conventionalized’ in order to give the process emphasis” (Cameron 2003: 100).

Steen (2008c) defines deliberate metaphors as those metaphors which have an intentional communicative function allowing for a shift in perspective from the topic domain to a seemingly unrelated domain which somehow sets the topic in a different light. Non-deliberate metaphors, by contrast, lack intention of metaphoricity. For instance, although the preposition in the phrase *in 1999* is a linguistic metaphor which functions as a manifestation of an underlying conceptual metaphor, it is not a deliberate metaphor, because the intentional insertion of the space domain into the time domain is improbable. Steen draws an explicit distinction between intention and deliberateness: all communication is intentional in a general sense, whereas deliberateness in Steen’s terms refers to a conscious strategy of molding one’s messages in a certain way to achieve a certain effect.⁷¹ Deliberate metaphors overtly bring a seemingly incongruous domain into the discourse, creating a contrast which can only be understood through cross-domain mapping. Deliberateness can involve the production stage and/or the reception stage; symmetry between the two stages is not a requisite. Thus, a metaphor which is deliberate on the part of the producer need not be recognized as such by the recipient. The opposite may also hold true.

The same conceptual structures and linguistic forms contribute to both deliberate and non-deliberate metaphors. As Steen explicitly states, “The important theoretical point to make here is that conventional metaphor is not identical with nondeliberate metaphor” (Steen 2008b: 222-223). Any conceptual cross-domain mapping may be intentionally appealed to, resulting in either direct or indirect linguistic manifestations of metaphor. Entrenched metaphors in discourse may be the result of deliberate choice in the production stage, or they may be so interpreted in the reception stage. Furthermore, as discussed in section 6.3.2, metaphors which are novel in their degree of conventionalization may not necessarily have been intended or understood as such.

All that being the case, how may deliberate metaphors be recognized? Cameron, for instance, discusses methodological considerations for recognizing deliberate metaphors in her work with oral classroom discourse. She first writes that “a minimal indication of deliberate use” was the occurrence of a particular metaphor only once in her data (2003: 101). Beyond that, she relied on her native speaker knowledge and general experience with

⁷¹ In my study, the terms *non-deliberate* and *unintentional* is sometimes used interchangeably, although this is not meant to detract from the validity of Steen’s point in this regard.

teacher talk as tools to judge intention. Cameron stresses the crucial importance of context in the determination of the dividing line between deliberateness and conventionality, maintaining that the distinction is “discourse-derived and discourse-relevant” (Cameron 2003: 101). *Conventional* linguistic metaphors in Deignan’s sense (2005: 40-47) are not necessarily *conventionalized* in Cameron’s sense, a distinction which coincides with Steen’s differentiation between the terms *conventional* and *non-deliberate*. Both conventional and novel metaphors can be used either deliberately or unintentionally. The deliberate use of a conventional metaphor entails the awakening of a usually dormant underlying conceptual metaphor. Bridge metaphors in puns, newspaper headlines, and advertising, for instance, frequently depend on such activation to achieve their intended effects (see section 2.4.2.1 for a definition of bridge metaphors). Cameron further postulates that deliberate conventional metaphors “would probably need to be marked by some supra-segmental feature(s) in talk or orthographic feature(s) in writing” (2003: 110), something making them fairly easy to recognize.

Steen too offers guidelines for recognizing deliberate metaphor, but the characteristics he mentions are independent of native speaker knowledge and previous experience (Steen 2008b, 2008c). First, he proposes that cases of direct expression of metaphor almost always characterize instances of deliberate metaphor because they make the underlying conceptual metaphor explicit (see also Goatly 1997: 183). As explained in section 4.2.2, such direct expression is typically realized by similes, analogies, and allegories. The recognition of deliberate metaphors which are indirectly expressed – the focus of my study – is however somewhat more challenging to determine with any degree of validity. Steen, however, suggests four scenarios where the likelihood of deliberate use substantially increases, while simultaneously acknowledging the need for more research in this area. First, a defective *A is B* comparison, i.e. one that is false or overly trivial, shows intention. Deliberation, for example, may thus contribute to the perceived metaphorical force of a word such as *ingredients* in the *A=B* construction *Art and culture are the important ingredients...*, cited as (29) in section 5.3.2, where it was postulated as being more obviously metaphorical than a word like *next* in the phrase *the next dream*. Such predicative metaphors (e.g. *Man is a wolf*, *Sally is a block of ice*, etc.) have been the focus of countless philosophical discussions of metaphor as well as more recent psycholinguistic research into metaphor, and yet they are rare in actual usage (see Croft and Cruse 2004: 195).⁷² Steen, for

⁷² Much of the literature on metaphor relies on various *A=B* metaphors for the basis of discussion. In addition to the two already mentioned examples, no dissertation worth its salt would be complete without a mention of

instance, notes an almost complete absence of them in his material, a fact which is in accordance with his observed overall frequency of novel metaphors. Second, metaphor may be understood as intentional in the case of multiple, serial and/or extended metaphors despite the lack of any explicit signal of comparison. Various rhetorical devices may exploit this possibility, exemplified by Martin Luther King’s “I Have a Dream” speech where his frequent repetition of the phrase effectively emphasized the main points in his message. Third, mixed metaphors, involving two conflicting source domains, may be experienced as deliberate by readers regardless of whether they were so intended. An example is the comments published by the *Los Angeles Times* immediately after Khrushchev’s 1959 visit to the US: “Mr. Khrushchev left behind a soap bubble of hope and our government is trying to preserve the fragile fabric in a steamy gas of optimism” (Carlson 2009: Kindle location 4380). Finally, Steen adopts Goatly’s categorization of explicit metaphor markers (Goatly 1997: 168-197), contending that some deliberate metaphors are clearly flagged by specific topic domain markers. Goatly’s example *mental incontinence* (Goatly 1997: 171) provides a case in point, where the word *mental* functions as an overt flag to alert the reader that the reference is to figurative incontinence rather than physical. Further signals include use of hedges or downtoners like *in a way* and *practically*, intensifiers such as *literally* and *in fact*, the term *so to speak*, and orthographic features such as scare quotes.⁷³ The typology of deliberate metaphor suggested by Steen and adopted in this study is presented graphically in Figure 7.



Figure 7: Typology of deliberate metaphor

6.3.1.1 L1 transfer and deliberate metaphors

An important point with respect to deliberate metaphor is that the L1 need not be cast completely aside when writing in an L2. Translingual writers – those writing across

at least one of the following: *Juliet is the sun*, *Richard is a lion*, *Sam is a pig*, *He is a gorilla*, *Bill is a bulldozer*, and/or the notoriously non-defective (and hence overly trivial) *No man is an island*. Bezuidenhout (2001: 2) characterizes this state of affairs as “an impoverished diet of examples” in the philosophy of language. Wikberg (2008: 45) dates the predominance of such stereotypical examples to before the blossoming of corpus research into metaphor in the 1980s.

⁷³ Scare quotes are defined and discussed in section 6.5.3.

languages – may appropriate images and wording from their L1 and successfully create what become in effect novel metaphors in the target language. As Kellman writes,

It is hard to take words for granted when writing in a foreign language. Translinguals represent an exaggerated instance of ...the distinctive quality of *all* imaginative literature: *ostranenie*, “making it strange.” (Kellman 2000: 29)

The sense of contrast brought about by such linguistic estrangement can be effective, something many professional writers have observed and turned to their advantage. The French poet and language teacher Mallarmé, for instance, intentionally inserted nonsensical elements into his English lessons by illustrating rules of English grammar with supposed English proverbs, such as *Who can shave an egg?* Many of his adages are borderline incomprehensible, but nevertheless “entirely seductive [due to]...their irreducibly foreign character” (Warner 2008: 5 of 12). Another oft-cited example is the Irish playwright Samuel Beckett, whose French works are known for their original qualities which derive from his having intentionally lifted phrasing and word choice from his native English to deliberately provoke the reader (Bergvall 2002, Kellman 2000: 28). Steiner characterizes such writers as linguistically “unhoused” and “wanderers across languages” (Steiner, quoted in Crystal 2009: 22). Rather than confining themselves to the norms of a language, these writers find their own unique voices by developing writing strategies to underscore the never-ending process of language creation and prove that a language cannot be owned by any one group (Bergvall 2002).

As Hessler documents, the same compelling effect may also be produced with great impact by less culturally or linguistically aware writers. He recalls his impressions of the English texts written by his Chinese university students about the object of affection that inspired Shakespeare’s sonnets:

There was an intensity and freshness to their readings that I’d never seen before from any other students of literature, and partly it was a matter of studying foreign material. We were exchanging clichés without knowing it: I had no idea that classical Chinese poetry routinely makes scallions of women’s fingers, and they had no idea that Sonnet Eighteen’s poetic immortality had been reviewed so many times that it nearly died, a poem with a number tagged to its toe. (Hessler 2002: 44)

Hessler’s students thus create a series of innovative metaphors in English simply by reproducing standard Chinese poetic images which are in turn interpreted by the American teacher as deliberate. It is only after attaining greater familiarity with the students and their culture that Hessler discovers that their apparently deliberate and novel metaphors were not necessarily intended as such. At the same time, however, these Chinese students were able to view well-known English metaphors with fresh eyes.

6.3.2 Non-deliberate metaphors

Novel metaphors, however, need not be deliberate. Steen and Gibbs offer one such (somewhat confusing) hypothetical scenario, by claiming that “it is certainly possible that people produce novel cross-domain mappings that are not deliberate at first, but which they interpret in retrospect as more or less intended” (2004: 349). This introduces a diachronic perspective in interpretation; if language producers rewrite history to reinterpret the motivations for their own utterances, do those utterances remain unintentional or can they then legitimately be interpreted as deliberate? Some researchers automatically exclude anomalous language that arises out of error from consideration as possible linguistic metaphors. An example is Cameron, who explains that “[t]he incongruity needs to have the potential to be resolved and to produce an understanding” in terms of cross-domain mapping for it to be classified as metaphor (Cameron 1999: 118). Although I agree with the view that incongruity in itself does not comprise sufficient grounds for attribution of metaphoricity, it turns out that practical criteria for exclusion as linguistic metaphors are not so readily established. Steen’s point concerning the roles of speaker’s intention and hearer’s interpretation when it comes to deliberate metaphor is relevant here as well. Although non-deliberate metaphors may have been unintentionally produced, they may nevertheless be interpreted as deliberate – or at least not as error – and hence as meaningful. Goatly, for instance, discusses this dichotomy in terms of “asymmetric interpretation,” an important added consideration to the definition of metaphor, which does not typically take the roles of producer and recipient into account. He illustrates such asymmetry with cases such as his three-year-old daughter’s lexical gap which led to her refer to a crust of bread as a “shell,” which can be interpreted as a “transfer” metaphor linking similar qualities from two different domains (Goatly 1997: 27 and 127-130). Moreover, as mentioned in section 2.6, deviations in standard lexis can result in effects such as textual unintelligibility and/or increased processing time. Consequently, they may have an influential effect on the reader.

This study differentiates between two subtypes of non-deliberate metaphors: *inadvertent* and *non-conventionalized*. In addition to being non-deliberate, instantiations of the two subtypes share the features of having been identified as MRWs through application of MIP, and of having been further categorized as novel because their contextual senses are not codified in dictionaries. Cases falling into the former category, however, consist of those novel metaphors resulting from inappropriate lexical choices. They are either mistakes or

errors, where no novel metaphoricity was probably intended by the writer.⁷⁴ Inadvertent metaphors are further subdivided according to an adapted version of James’s typology of levels of error in language learning. Specifically, James discusses two levels of learner error that are relevant to the creation of what MIP identifies as linguistic metaphors in written discourse. *Substance level errors* involve the encoding of written symbols (the medium), whereas *text level errors* involve the usage of the lexico-grammatical system of the language in question (James 1998: 129-172). Further details about these categories are provided in sections 6.3.2.1 and 6.3.2.2.

Instances of the non-conventionalized type of non-deliberate metaphor, by contrast, are not inappropriate in context. In such cases, although they have been classified as novel metaphors due to their lack of codification in standard dictionaries, corpus evidence calls the innovative nature of their use into question. The term *non-conventionalized* adopted here is intended to indicate that while they are not novel according to Deignan’s definition based upon corpus frequencies, their contextual senses have not yet appeared in contemporary ESL dictionaries. Figure 8 presents a graphical overview of the general typology of non-deliberate metaphor adopted in this study.

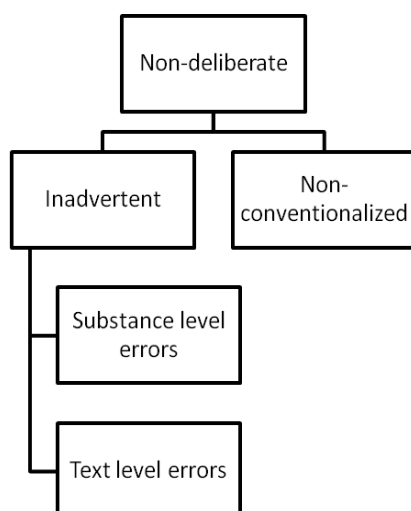


Figure 8: Typology of non-deliberate metaphor

6.3.2.1 *Substance level errors*

For the present study, substance level errors are defined as misspellings that have some consequence for metaphor identification, i.e. the misspelling in question generates a word codified in the standard English lexicon although unlikely to have been the intended target lexeme. Note that only those errors which could be analyzed as possible cases of linguistic metaphor are discussed here. Thus, those errors resulting in existing words that were

⁷⁴ The distinction between mistake and errors lies in the writer’s ability to self-correct, something which has been discussed on page 32.

identified via MIP as not related to metaphor (e.g. misspelling *too* for *to*) are not discussed. Also excluded are errors that result in spellings that do not appear in the standard lexicon of the target language and which consequently are difficult to interpret. In such cases, what has actually been produced is not standardized and it is unclear what the target lexeme might have been. Furthermore, errors which result in words that could not plausibly be confused for any other lexeme have been disregarded. As an example, note that although the *communiare* in the sentence *computers can communiare with each other*⁷⁵ has a spelling error in that the second ‘c’ is omitted, it has been analyzed for metaphor as if it were correctly spelled because there is no word *communiare* with which to compare the contextual and basic meanings in the dictionary. When the ostensible spelling error creates an actual word in the English lexicon, however, the basic meaning of the word that was actually written is used as the benchmark rather than the basic meaning of the word which might have been intended. In this way, the analysis remains faithful to the text rather than attempts to impose meaning.⁷⁶

A simplified overview of substance level errors is presented in Figure 9. Substance level errors involving metaphor fall into one of two main categories. *Mechanical misspellings* are caused by the very process of creating the written symbol. Mistaken *punctuation* is one type of misspelling, but would not affect linguistic metaphor except possibly in the case of the overuse or underuse of a space with the constituent parts of a compound (discussed in section 4.5.3). A second sort of mechanical misspelling is caused by momentary carelessness. James characterizes such mistakes as “typographical,” a classification which implicitly presupposes the use of a keyboard in the production stages. As explained in section 3.2.3.4, however, ICLE texts were submitted either electronically or in paper format. The LOCNESS texts were presumably handwritten, given the limited availability of computers for use in the mock exams in the mid-nineties when the texts were collected. As a consequence, this study adopts the term *oversight* to refer to mechanical misspellings that do not involve punctuation.⁷⁷

⁷⁵ This LOCNESS sentence is quoted in full as example (88).

⁷⁶ Note, however, that there is a fuzzy line between inclusion and rejection of a misspelled word for metaphorical analysis. For example, review the example of *pression* in (20), which was rejected as DFMA. One solution to this possible inconsistency would be to discard any misspellings that form non-standard words as cases of DFMA.

⁷⁷ Note, however, that the division into the separate categories of *punctuation* and *oversight* is not intended as a denial of the fact that that mistaken punctuation may also result from oversight. These labels are merely intended as a convenient means of disguising errors related strictly to punctuation from others. In any case, no novel metaphors attributable to punctuation were found in my data.

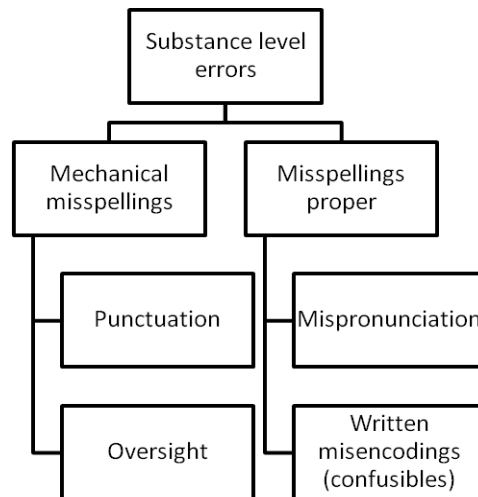


Figure 9: Simplified overview of substance level errors that have relevance to metaphor

The second subtype of substance error is *misspellings proper*, genuine misspellings as opposed to inadvertent ones. There are primarily two types which may lead to the production of novel metaphors. The first is caused by *mispronunciation* of a word which triggers the misspelling, an error that was “in a sense committed before pen met paper” (James 1998: 137). Such cases are prompted by a speaker’s mispronunciation of the target sound, which is then reproduced in writing with the letter representing the substituted sound, rather than the appropriate target sound. As an illustration of this error, James explains that Welsh speakers tend to pronounce the phoneme /z/ as /s/, which leads them to spell a word like *zoo* as *soo* (James 1998: 137). Although this particular example would have had no consequences for my data because there is no standard English lexeme *soo* which could be employed as a benchmark for metaphor identification, one can envisage cases where such mistaken spelling results in lexicalized words. The second type of misspelling proper is characterized as *written misencodings*, so-called *confusibles*. There are two types of confusibles, one involving *phonetic near-misses* such as mistaking the word *anus* for *onus*, the other involving confusion between *homophones* such as *chords* and *cords* (James 1998: 133-140).

6.3.2.2 Text level errors

Text level errors involve the lexico-grammatical system of languages rather than the issues of “pure” morphology, the domain of substance level errors. A simplified overview of text level anomalies is presented in Figure 10.

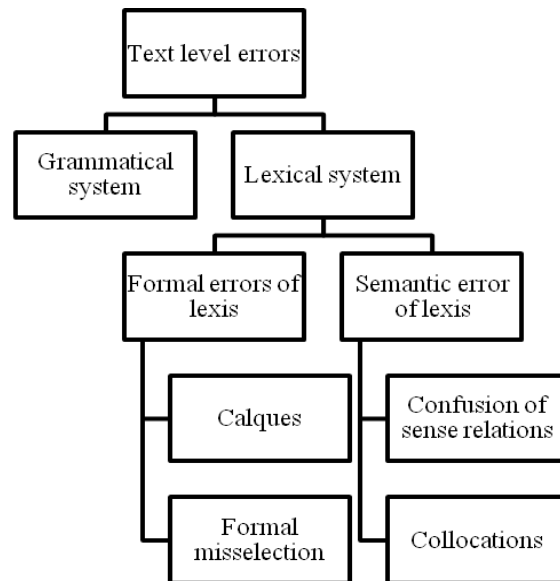


Figure 10: Simplified overview of text level errors that have relevance to metaphor

First, James divides *grammatical* errors into those relating to syntax and those relating to morphology. The former category includes, for example, concord mismatches (e.g. **my doctors is talented*) and have no relevance for metaphor identification. By contrast, morphology errors involving grammar where there is “a failure to comply with the norm in supplying any part of any instance of these word classes” (James 1998: 154), involve the structure of lexical words. Hence, they are distinct from substance level errors, which do not affect word class. Because MIP maintains that identification and comparison of senses is dependent upon word class and grammatical category (explained in section 4.7), then noun, verb, adjective and/or adverb morphology errors can be of consequence when it comes to the identification of possible linguistic metaphors.⁷⁸ An example is the use of an uncountable noun such as *experience* in a countable way, which in this case changes the meaning; indeed, these two lexemes are translated by separate terms in Norwegian, *erfaring* for uncountable *experience* and *opplevelse* for countable *experience*. To take another example, if a writer mistakes a noun for what should be a verb, then a strict application of MIP triggers comparison of the contextual meaning against the basic nominal meaning listed in the dictionary. This practice may lead to interesting conclusions concerning degree of conventionality of metaphoricity.

Text level errors involving the lexical system are arguably more consequential for metaphor studies than substance level errors. James divides this group into two subcategories. The first involves what he calls *formal errors in lexis*, divided into *calques*

⁷⁸ James includes prepositions as a type of lexical word class, but says they have no morphology. I deal with prepositions in chapter 7.

and *formal misselection*. Calques are cases of transliteration, involving the literal translation of an L1 term into the L2, an example taken from my personal experience being *children's garden* for *kindergarten/preschool*, derived from Norwegian *barnehage* [lit: *childgarden*]. As Hasselgren explains, in transliteration the writer essentially decomposes an L1 item and reassembles it with L2 parts (Hasselgren 1994: 240). Formal misselections consist of three types: *totally deceptive cognates*, *partially deceptive cognates*, and *synforms*.⁷⁹ The first two types are motivated by “interlingual misequation” (James 1998: 147). James defines totally deceptive cognates as historically related words in the two languages whose contemporary meanings have completely diverged in the course of time, that is, false cognates. For the present study, however, I choose to widen the scope of the definition of totally deceptive cognates to that of *false friends*, thereby disregarding etymological concerns in this regard. This type thus comprises word pairs in the two languages which look/sound alike and which learners perceive to be equivalent even though the words actually have no shared meaning (following Hasselgren (1994: 240)). Partially deceptive cognates are instantiations of incomplete divergence, where a single L1 word corresponds to more than one L2 words. The third variety of formal misselection, synforms, comprises four types:

the **suffix** type (e.g. *consider<able>* / *consider<ate>*); the **prefixing** type (e.g. *<com>press* / *<sup>press*); the **vowel-based** type (e.g. *seat* / *sit*, *manual* / *menial*); and the **consonant-based** type (e.g. *prize* / *price*, *ledge* / *pledge*). (James 1998: 145, bold script and italics in the original)

James adds that in the case of synforms, the word employed is always an already existing word, and it is a member of the contextually required word class. In James' discussion, there is some confusion as to the distinction between synforms (a lexical text error) and confusibles (a substance error) (James 1998: 144-149). Such confusion is perhaps not surprising; the term originates with Laufer, who defines them as “words similar in form, phonological, graphic or morphological” (Laufer 1988: 117) an umbrella term for “synphones” (words similar in sound), “syngraphs” (words similar in script), and “synmorphs” (words similar in morphological structure, with an identical root but different affixes). As the three subtypes frequently co-occur in the same pairs, Laufer prefers the superordinate term, which she classifies into ten different categories based on various combinations of phonological, graphic, and/or morphological features (Laufer 1988: 116-117, 120-121; see also Kocić 2008). James appears to have instead divided Laufer's synforms into two individual categories – synforms and confusibles – but has been unsuccessful at clearly distinguishing between them. For the present study, synforms

⁷⁹ James borrows the first two terms from Granger 1996.

involve pairs of words 1) which are phonetic near-misses and which share semantic features (e.g. *notable/noticeable*) or 2) which are phonetic near-misses demonstrably confused by a wide group of writers, thereby indicating that a simple spelling mistake of a single writer cannot be the sole factor at play (e.g. *loose/lose*). Confusibles, by contrast, consist of phonetic near-misses (e.g. *dear/dare*) or homophones (e.g. *break/brake*) whose meanings widely differ and which tend not to be confused on any widespread basis.

The second group of lexical level errors according to James' typology consists of semantic errors of lexis. First, metaphor identification might be affected by confusion of sense relations, as when the "less apt of two co-hyponyms" is employed, exemplified by *decision to *exterminate [eradicate] dialects*. Such sense relation confusion can also result from the selection of an inappropriate member from a set of near-synonyms (James 1998: 150-151). Although in the absence of any signs of deliberate use, cases of sense relation confusion are treated as errors. Note that Goatly discusses a similar case as an illustration of one "path" to the expression of deliberate metaphor. He considers the example of *a woman whose son had been damaged in a smash*, explaining that the metaphoricity arises not out of a difference in reference between *damage* and the more conventionally appropriate *injure*, but from the difference in the typical colligations of the two verbs: *injure* typically colligates with animate entities and external body parts (e.g. *foot*), whereas *damage* appears with inanimate entities and internal body parts (e.g. *liver*) (Goatly 1997: 115).

Second, semantic errors may be due to collocational norms, of which James mentions three varieties: *semantically determined word selection* (e.g. *crooked stick*, but not **crooked year*), *statistically weighted preferences* (e.g. *big losses* is acceptable, but *heavy losses* is preferred), and what he calls *arbitrary combinations* (e.g. *make an attempt*, *have a try*, but not **have an attempt*, *make a try*). Here James adds that collocational error can sometimes be attributed to interlingual factors, involving the transfer of acceptable L1 collocations which produce non-conventional collocations in the L2 (James 1998: 152-154).

6.3.2.3 L1 transfer and non-deliberate metaphors

In his discussion of metaphorical competence, Danesi explains that the root of the problem for language learners rests in an "asymmetry between language form and conceptual content" (Danesi 1994: 454) that is not evident in the written discourse of speakers of native or near-native proficiency. He maintains that this asymmetry involves the use of conceptual metaphor. That is, although learners use the words and syntax of the target language, they may be utilizing metaphorical concepts only accessible in their source language or

producing “an unnatural degree of ‘textbook literalness’” (Danesi 1994: 453). The cause of such errors is to be found in the overlap and contrast between the conceptual domains of the L1 and L2 cultures, the result of “conceptual transfers” (Danesi 1994: 461).

Philip, by contrast, holds that language learners employ inappropriate linguistic renditions of the metaphorical concepts common to both languages. Problems related to the metaphorical competence of language learners lie not on the conceptual level but on the linguistic level, evidenced by inappropriate L2 encoding of shared concepts. She maintains that there are important links between phraseology and metaphorical concepts, i.e. between form and meaning. Conventional metaphorical schema may be extended by the language learner to inappropriate or anomalous linguistic metaphors, resulting in a potential breakdown of meaning.

Perhaps the most difficult area for learners is that “the translation of a [sic] L1 word in its literal sense may not be an appropriate translation for the same L1 word when used figuratively” (Philip 2006a: 9). As Philip explains, few words enjoy complete equivalence in two languages on all occasions. For example, although *heavy* and Italian *pesante* are appropriate translations for one another when employed in a literal sense, they have different metaphorical extensions. The Italian learner who writes *my nerves broke down and I went into a heavy depression* produces an odd collocation in English, a more felicitous English expression being *deep depression* (Philip 2006a: 8). In the final analysis, Philip concludes “familiarity with collocational patterning is ultimately more influential than conceptual knowledge in a foreign language” (Philip 2006a: 16), especially where cultural concepts are shared. Learners rely on straightforward translations of familiar ways of expressing concepts, not realizing that such a strategy does not guarantee success in communication. “It is not apparent to most students that their world knowledge is structured in terms of their L1, and it comes as a surprise to find that the L2 lexicalised concepts in palpably different ways” (Philip 2006a: 16). Adherence to L1 phraseological patterns when writing in an L2 has the unintended effect of making the texts sound “foreign” due to the lower incidence of conventional L2 phraseology.

6.3.3 Attribution

The third type of novel metaphor in the present study consists of novel metaphors in student texts whose origins can plausibly be traced (for example, with the help of Internet search engines) to outside origins. Overtly marked direct quotations have been excluded from my metaphor analysis, as has obvious rewording of the prompt given by the ICLE researcher (discussed in section 4.5.6). Unmarked cases of direct citation, however, have been subject

to metaphor analysis. In a worst case scenario, lack of attribution may be equated to plagiarism, deliberate theft of the words and ideas of another. In a more charitable light, lack of attribution may be considered evidence of the learning process; novice writers emulate the writing of others to then be able to find their own voices. Because unattributed text may be deliberately written or unconsciously copied, this third category is not exclusive from the first two. This category is warranted, however, partially because awareness of plagiarism by the writer is hard to judge on the basis of the written text alone and partially as a means to signal the fact that the innovation associated with the metaphor in question should not be attributed to the invention of the NICLE or LOCNESS writer. The novelty of the particular metaphor is thus not at question, but that novelty was penned by someone else.

6.4 NICLE & LOCNESS: Overview of novel lexical metaphors

An overview of observed frequencies of the NICLE and LOCNESS novel lexical metaphors, divided by type, is presented in Table 17. The general indications given by these figures are discussed immediately following the table, after which each category is explored in some detail in separate subsections.

Table 17: Observed frequency of novel lexical metaphors in NICLE and LOCNESS, divided by type

	NICLE	LOCNESS
Deliberate	23	6
Non-deliberate	70	48
Attribution	2	0
Total	95	54

There are almost twice as many novel lexical metaphors in the Norwegian material, and here we see that their distribution patterns differ considerably when possible motivation is taken into consideration. First, there are almost four times more deliberate metaphors in NICLE than in LOCNESS, in part due to one particular essay which accounts for 17 out the 23 total deliberate metaphors in NICLE. Most of these metaphors are classified as deliberate due to the sheer abundance of figurative language in this one text, i.e. the presence of multiple, serial and/or extended metaphors. There are some few instances of explicitly signaled metaphors in both corpora. All such instances have been flagged by scare quotes. Furthermore, although there are also a few defective $A=B$ novel metaphors in my data, there are no examples of mixed metaphor. A possible cause for this dearth of observed mixed metaphors may lie in the focus on the word level which is partially due to the identification method of MIP, plus that many mixed metaphors rely on conventional rather than novel metaphors on the linguistic level.

There are also many more non-deliberate metaphors in NICLE than LOCNESS. Sixty-seven of the 70 non-deliberate metaphors in NICLE are inadvertent, as opposed to 26 of the 48 LOCNESS non-deliberate metaphors. This suggests that the Norwegian students more often commit mistakes/errors in their written English production. This is perhaps unsurprising since they are writing in their L2. Indeed, many of these inadvertent metaphors may be attributed to negative L1 transfer, involving for instance either totally or partially deceptive cognates (substance level errors) or confusion of sense relations that may plausibly be chalked up to interlingual sources (text level errors). Many of the LOCNESS inadvertent metaphors, by contrast, are ostensibly due to spelling mistakes, as well as sense relation confusion that appears to affect primarily NS speakers alone. By contrast, there are substantially more non-conventionalized non-deliberate metaphors in LOCNESS (with 22) than in NICLE (with 3). As will be seen, the majority of these involve personification of computers / technology / machinery.

Finally, there are very few cases involving lack of attribution in my data. Only two NICLE instantiations have been observed, both of them found in the same text.

6.5 NICLE & LOCNESS: Deliberate metaphors

The breakdown by type of the identified NICLE and LOCNESS deliberate metaphors is presented in Table 18.

Table 18: Overview of NICLE and LOCNESS novel lexical deliberate metaphors, divided according to type

	NICLE	LOCNESS
Multiple, serial and/or extended metaphors	17	1
Defective $A=B$ metaphors	3	2
Explicitly signaled metaphors	3	3
Mixed metaphors	0	0
Total	23	6

As already mentioned, the obvious discrepancy between the observed frequencies of deliberate metaphors in the two corpora is due to the greater numbers of multiple metaphors in one particular NICLE text. Other than that, the numbers and types of deliberate metaphor in NICLE and LOCNESS are comparable. Illustrations of the different varieties of deliberate metaphors are discussed in detail in the following subsections.

6.5.1 Multiple, serial and/or extended metaphors

One essay is in a sense an outlier, standing out due to both its length (1779 words, approximately three times the average NICLE text length) and its imaginative language. The

opening paragraph of the text provides testimony to the conscious use of imagery with a wealth of deliberate and novel metaphors, thereby fulfilling the criterion of extended metaphor as an indicator of deliberateness.

The thoughts of a romantic scientist. -

All my instruments are ready. The test tubes, the gas burner, my nets and my microscope. I am looking for a dream. Is it possible to retrieve it in this sea of contamination? Is it possible to extract its pure and golden drops from all that mucky grey? Is it even there, this sense of mystery and imagination? Has too much knowledge perchance dissolved it and left but the dull and naked facts, crumpled and shivering in the chill gust of science? Is ignorance truly bliss? Does too much knowledge lead to disillusion and cynicism? Can one be an educated person and still retain within oneself the sacred seed of mystery? ICLE-NO-AG-0017.1 (novel metaphors underlined)

Interestingly, Goatly discusses a case which closely parallels this student's use of the lexeme *naked* (Goatly 1997: 114-115).⁸⁰ Here, as in Goatly's example, metaphoricity depends upon a combination of unusual reference and unusual colligation. The concept *naked* is a novel vehicle which refers to the topic concept *bare* – itself a conventionalized metaphor in this context involving a shift from MED1: “a part of your body that is bare is not covered by any clothes” to MED3: “basic, with nothing extra.” In addition, there is a contrast between the actual colligate, *facts*, and the typical conventional colligate of *naked*, which is *body*. The interpretation of “facts-as-body” is reinforced by the immediately subsequent references to *crumpled* and *shivering* which also conventionally colligate with *body* rather than *facts*. Note that as a consequence, the lexeme *dull* becomes in essence ambiguous between two conventional metaphorical senses, those of “boring” and “unintelligent.” This transliteration of *naked facts* into Norwegian produces a collocation common in Norwegian, a Google search of the phrase *nakne fakta* returning 26,000 matches. L1 transfer, perhaps intentional, may therefore play a role in this choice.

There is no such corresponding text in the LOCNESS data, nor is there any unambiguous candidate which could be said to parallel this usage. The one possibility is the use of *offloaded* in a sentence previously referred to as example (15). For the sake of convenience, the sentence is repeated here in (41).

(41) Therefore, I conclude that although the invention and development of the human computer has kept the brain on, full-time, it use has offloaded it, to a certain extent, into redundancy. ICLE-ALEV-0006.6

This is the concluding sentence of a student who clearly struggles to express herself well in writing. This conclusion, together with much of the rest of the text, is difficult to interpret. Still, it would seem that the writer here attempts to create a sweeping statement, a grand

⁸⁰ Goatly discusses the use of *naked* in “Down the vast edges drear and **naked** shingles of the world” (bold script in Goatly's text).

conclusion. Although the success of this strategy may be questioned, I would contend that in overextending her powers of expression, she may have deliberately chosen a term such as *offload*.

6.5.2 Defective $A=B$ metaphors

Another sweeping conclusion to an essay is found in one of the NICLE texts, which contains a defective $A=B$ metaphor in the phrase *angle of incidence*:

The world is constantly changing. Every second a new fantastic invention comes to being. Science Technology controls almost every bit of mankind. We are only several numbers on computers. In some ways we are only pawns in a game, being moved passively around. But this is where we understand the importance of imagination and dreaming. An angle of incidence, ways of getting our individuality back. Only then we can become complete human beings. ICLE-NO-BE-0009.1

Deliberate metaphorical images (although entrenched rather than novel) of the helpless individual are rampant here: people are numbers, people are pawns. But, says the writer, there is hope to be found in imagination and dreaming, which are likened to an *angle of incidence* to our individuality and human nature.

A literal angle of incidence, illustrated in Figure 11, is a measure of deviation from a line perpendicular to the point of incidence, a term used areas such as optics, aviation, and sports medicine.

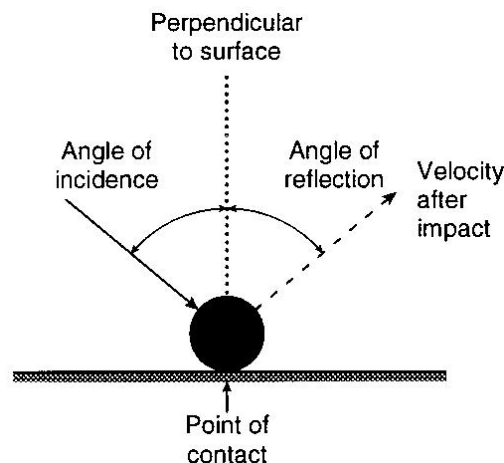


Figure 11: Angle of incidence.⁸¹

A metaphorical angle of incidence is an intriguing concept, but one impossible to rearticulate with any degree of certainty. One can offer various interpretations, but the true meaning of the metaphor is inexhaustible and cannot be completely “translated” into literal language. Such open-ended quality is a mark of the sort of novel metaphors which traditionally provide the fodder for philosophical discussions of the trope (see e.g. Bezuidenhout 2001: 20, Cohen 1976: 250).

⁸¹ Source: <http://www.answers.com/topic/angle-of-incidence> (Retrieved March 4, 2010).

6.5.3 Explicitly signaled metaphors

There are six cases of explicitly signaled novel metaphors, three in each corpus. In all six cases, the metaphors have been flagged with *scare quotes*, a term commonly employed to refer to quotation marks that encase expressions which are not direct quotations. Such quotation marks are usually intended to convey that the scare-quoted word or expression is inappropriate for some reason and that the writer desires to distance himself from it, but they also serve a number of other purposes, including the overt marking of an expression used in a figurative sense (Dillon 1988: 64-65, Goatly 1997: 175 and 189, Mitchell 2007: 225, Nacey forthcoming). That metaphor may play a role in the production of scare quotes in advanced learner English has also been touched upon by Nesselhauf in her study of English collocations found in the German subcorpus of ICLE. Here she notes that some scare-quoted verbs in her data “have frequently used literal meanings and the learners may have been uncertain about how far they can be used with figurative meanings” (Nesselhauf 2005: 150).

In general, however, it would appear that the Norwegian and British students employ scare quotes to accomplish slightly different pragmatic purposes. Consider the following two scare-quoted novel metaphors, (42) taken from LOCNESS and (43) from NICLE:

(42) Research in artificial intelligence, the attempt to produce a "thinking" computer, has grown massively in the last decade, yet we are little closer to producing any true artificial life for it. ICLE-ALEV-0002.6

(43) In other words we make our own "film" of the book, and we imagine how each character is suppose to look like. ICLE-NO- HO-0023.1

The choice of *thinking* in conjunction with *computer* in (42) is an example of personification of an inanimate object and thus a metaphor; because computers are machines, no “thinking” as we typically define it actually occurs. In terms of degree of conventionality, this particular metaphor – together with the two remaining LOCNESS scare-quoted novel metaphors which also instantiate personification of machinery – have been classified as novel on the basis of dictionary entries which indicate, both through definition and illustrative sentences, that “thinking” is the prerogative of animate beings, and more specifically, of human beings. This term would appear to be encased in scare quotes due to the writer’s awareness that the word is in some sense incongruent (i.e. computers don’t really think), combined with a consequent desire to highlight that awareness. Such scare quotes are termed “secure” because the writer realizes that the scare-quoted terms are in common usage.

The use of scare quotes around *film* in (43), by contrast, is better characterized as “insecure,” meaning that the writer here indicates uncertainty as to whether the chosen term is correct (see Pullum 2005 about secure and insecure scare quotes). Lacking the inclination or possibility to search for a more appropriate word, the writer indicates awareness of having settled on a less-than-optimal turn of phrase. In general, such a term is felt to be wrong due to inaccuracy, a sudden change in register, or unfamiliarity (such as with a foreign term). Here the scare quotes seem to overtly mark the use of a learner compensation strategy, a tactic employed to fill a gap in the learner’s knowledge of the language in question. There are many possible options to bridge such gaps, the choice of *film* in (43) being an *approximation*, involving the substitution of the unknown target word with another expression that the writer hopes will suffice in conveying the intended meaning (see Poulisse 1993 for an overview of learner compensation strategies).

Examination of all scare-quoted terms in NICLE and LOCNESS brings to light a number of further observations. First of all, scare-quote usage is not reserved exclusively for metaphorical terms, a point which previously researchers have (implicitly) made and which my data serves to reinforce. Roughly 60% of the scare-quoted terms in NICLE are not identified as MRWs when following MIP; similarly, approximately 70% of the scare-quoted LOCNESS terms are non-metaphorical. Second, most scare-quoted metaphorical terms are conventional metaphors rather than novel. This supports Steen’s and Cameron’s contentions concerning the deliberate use of conventionalized metaphorical language. The use of scare quotes in and of themselves marks deliberation by the writer, yet in most cases there is nothing novel about the metaphorical term. Third, LOCNESS writers more often employ secure scare quotes, whereas NICLE writers tend to employ insecure scare quotes. This makes intuitive sense, as L2 writers are likely to be more often confronted by an inadequacy in their active vocabulary. This last observation is a trend only, rather than an ironclad rule. Although there are significantly more insecure scare quotes in the Norwegian material, Norwegians too employ secure scare quotes in their written English. For example, one NICLE student employs a conventional metaphor in writing about technological “progress” in (44).⁸²

(44) There is always something new going on, and we make "progress" all the time. ICLE-NO-AC-0001.1

⁸² Here, the basic meaning of progress (forward movement, MED2) is extended MED1: “the process of developing or improving.”

Although this writer clearly recognizes that the term *progress* is typically associated with the current advances in technology, the use of scare quotes conveys a sense of irony, underlining the writer’s opinion that not all innovations necessarily constitute actual improvements.

6.6 NICLE & LOCNESS: Non-deliberate metaphors – inadvertent substance level errors

Non-deliberate metaphors are divided into two subcategories, substance level errors and text level errors. An overview of the observed frequencies of the former subcategory, further divided by type, is presented in Table 19.

Table 19: Overview of the observed frequencies of substance level non-deliberate metaphors, subdivided by type

		NICLE	LOCNESS
Mechanical misspellings	Punctuation	0	0
	Oversight	1	6
Misspellings proper	Mispronunciation	1	0
	Written misencodings	6	2
Total		8	8

As may be recalled from the figures in Table 17, there are a total of 70 non-deliberate novel metaphors in NICLE and 48 in LOCNESS. Substance level errors thus represent roughly 11.4% of the total numbers of non-deliberate metaphors in the Norwegian material, as opposed to approximately 16.6% of the total such occurrences in the British texts. In general, the spelling of the LOCNESS writers is poorer than that of the NICLE writers. Orthographical errors, most of which cannot be said to involve any possible link with metaphor because they create non-existent words, are about twice as frequent in the LOCNESS material, with 310 registered mistakes as opposed to 115 in the NICLE material.

6.6.1 Oversight

There are a total of 7 mechanical misspellings in the two corpora which potentially involve metaphor from the strict perspective of MIP, 6 in LOCNESS and 1 in NICLE. As can be discerned from Table 19, all involve a spelling mistake rather a mistake in punctuation. The sole NICLE case exemplifies the error of letter omission (*television was exiting and quite sensational* ICLE-NO-BE-0009.1), as does a single LOCNESS case (*the metal arithmetic* ICLE-ALEV-0009.6). The remaining LOCNESS cases consist of cases where one letter has been mistakenly exchanged with another, illustrated in (45) where the letter *r* has been written in place of the letter *c*.

(45) Can we expert a scientist to bear this additional burden... ICLE-ALEV-0021.8

Although I would argue that both terms are probably the result of a momentary lapse, such judgement is subjective. The nature of metaphor serving to link two unlike domains opens the possibility that a given word choice was either deliberate on the part of the producer or might be so understood by the recipient. Consider the use of *binder* in (46) and *clear out* in (47).

(46) However if the scientist does get copyright and he then sells it to the highest binder he must also think about the greater good. ICLE-ALEV-0027.8

(47) In conclusion, I feel that this matter is not clear out. ICLE-ALEV-0030.8

An arguably uncharitable reading could attribute the use of *binder* to choice rather than oversight, where one could conceive of a link between binding and bidding, as the highest bidder, in effect, binds the price of something. *Clear out*, which most likely was mistaken for *clear-cut*, could instead involve a variation of a metaphorical sense of *clear*, MED2: “easy to understand.” In essence, *clear out* could be considered a novel polyword, with the particle *out* contributing the perfective sense of completion or thoroughness.

6.6.2 Misspellings proper

While LOCNESS writers seem to be more prone to spelling errors resulting from oversight, the NICLE writers display more genuine misspellings, confusing English words which have similar or identical pronunciations. A full 7 out the 8 total substance level errors in NICLE fall into this category of *confusibles*, as opposed to only 2 of the 8 LOCNESS substance level errors. This finding supports Lehmann’s contention that spelling errors in L2 written production sometimes reflect oral interference rather than being mere slips of the pen. She adds that such errors are often dismissed as trivial on the grounds that they exemplify non-standard performance that does not reflect on competence, a tendency she claims has increased in Norway ever since the advent of the communicative approach with its emphasis on the importance of communicative competence rather than accuracy. Lehman thus argues that such spelling errors should, on the contrary, be taken seriously because they “reduce the readability of a text” and thereby undermine the writer’s credibility (Lehmann 1999: 159).

In the NICLE material, there is only a single example of homophone pairs which have been confused, quoted in (48).

(48) This world is moving to fast, I need a brake. Stop the world; I want to get of it! ICLE-NO-BU-0003.1

Here, *brake* is written in place of its homophone *break*. Linguistic L1 interference has been excluded as a possible motivation, as there is no obvious resemblance between the Norwegian and English translation correspondents concerned (*pause* for *break*, and *bremes*

for *brake*). Homophones do, of course, naturally lend themselves to puns, as exemplified by (49) where the author is discussing car troubles.

(49) I need a “brake” from this problem.⁸³

Here, though, the deliberate choice of wording, whereby *brake* is clearly intended as a play on words, is indicated by the use of scare quotes. In (48), by contrast, there is no such sign of conscious choice, something which helps to rule out the possibility that *brake* is intended as a pun involving an intentional evocation of the link between two concepts. In a sense, however, *brake* can be interpreted as a bridge metaphor (discussed in section 2.4.2.1), particularly as it appears in context with the concept of “movement” which simultaneously evokes both literal movement of the world (physical revolutions of the planet) and metaphorical movement (progress in society).

Although homophonic confusion thus seems to be the probable inspiration for the production of *brake* in (48), confusion caused by word pairs that sound similar, rather than identical, provides the source for far more written misencodings. A case in point is found in LOCNESS, presented in (50).

(50) Therefore, computers can have an adverse effect on the human brain’s greatest facility, its imagination. ICLE-ALEV-0006.6

There would seem to be little doubt that the choice of *facility* here rather than *faculty* is the result of the two lexemes being phonetic near-misses. Some support for this contention also comes from the word frequency estimates in the Longman dictionary, which reports that while *facility* is among the 1000 most frequent written words and between the 2001 and 3000 most frequently spoken words, *faculty* is not included in the most frequent 3000 English words at all. It stands to reason that a writer could easily confuse the former, more familiar term for the latter one, especially given that this person is a novice writer, producing a text under mock exam conditions.

The probable cause for written production involving confusibles is, however, not always so clear-cut. For instance, consider the NICLE example in (51), where *wonder* has been confused for *wander*.

(51) Letting the mind wonder off on it’s own can work as therapy. ICLE-NO-AG-0011.1

Here we see a collocation between *mind* and *wonder*, adding a playful note which could point towards conscious word play and thus deliberate choice of the lexeme *wonder* – unlike the case involving *facility* and *faculty*. A process of elimination is therefore required to

⁸³ <http://en.allexperts.com/q/Toyota-Repair-832/2000-Tacoma-Brakes.htm> (Retrieved April 2, 2009).

attribute a case such as this to written misencoding rather than to any other source. In this particular instance, deliberation is ruled out because, just as in the instantiation with *brake* in (48), there is otherwise no indication of intention on the part of the writer; none of Steen's proposed criteria for deliberate metaphor are evident here. Negative L1 influence is also unlikely, as there is no Norwegian equivalent to the phrasal verb *wonder off*. Finally, mispronunciation on the part of the writer which could have resulted in confusing the two words is also improbable. Norwegians tend to pronounce *wonder* with the same vowel as in *wander*, not the other way around. If anything, a Norwegian writer would consequently be more liable to substitute *wander* for *wonder* on the basis of pronunciation.

The distinction between mispronunciation and confusable is, however, fuzzy. In the current study, only one lexeme is categorized as a substance level error resulting from mispronunciation, cited in (52).

(52) We are able to literary walk into an imaginary one and stay here as long as we want to. ICLE-NO-HO-0023.1

The phonemic distinction between the target lexeme of *literally* and the chosen lexeme of *literary* concerns the difference in articulation of the /l/ and /r/ phonemes. The distinction is slight, /r/ being an alveolar frictionless continuant and /l/ being an alveolar lateral. In the case of the former, the tongue is positioned just behind the alveolar ridge whereas in the case of the latter the tongue actually touches the alveolar ridge (Davidsen-Nielsen 1977: 77 and 79). This distinction may be easily missed, by being "swallowed" in connected speech. There is a possibility that the written word choice is motivated by the writer's misperception of the correct pronunciation, which in turn leads to an error of orthography.

In (53), where *dear* is written instead of *dare*, the problem is a bit different.

(53) I dear to say that it depends on your mood what kind of film/video you choose to see. ICLE-NO-HO-0023.1

Although Norwegian has neither of the centring diphthongs found in Received Pronunciation of *dear* or *dare*, Norwegians nonetheless do not find it difficult to imitate these sounds. They tend to correctly pronounce both *dear* and *dare*. On the other hand, English orthography is complicated and at times inconsistent. If one writes a number of *-ear* words on the blackboard (e.g. *fear*, *wear*, *bear*, *dear*, *Lear*, *spear*, *pear*, *rear*) and asks Norwegian speakers to divide the words according to vowel sound, hardly any can do so correctly.⁸⁴ The main challenge consequently lies in the written encoding of these sounds,

⁸⁴ Thanks to Ian Watering both for this observation and the explanation about *-ear* words and Norwegian pronunciation of the centring diphthongs.

rather than in the distinction between the sounds themselves. Hence, the problem here is restricted primarily to the level of written rather than oral production. Moreover, just as in the *facility/faculty* case, *dear* in (53) requires an extremely uncharitable interpretation to view this as anything other than a spelling error.

6.7 NICLE & LOCNESS: Non-deliberate metaphors – inadvertent text level errors

Text level errors comprise the majority of the non-deliberate metaphors in both NICLE and LOCNESS. An overview of the observed frequency of text level errors in the two corpora, divided by type, is presented in Table 20.

Table 20: Observed frequencies of text level non-deliberate metaphors, subdivided by type

			NICLE	LOCNESS
Grammatical system			6	2
Lexical system	Formal error of lexis	Calques	12	0
		Formal misselection	13	2
	Semantic errors of lexis	Confusion of sense relations	20	12
		Collocation	8	2
Total			59	18

Investigation of the 77 total instances of non-deliberate text level metaphors in the two corpora shows that motivation for their production varies between interlingual or intralingual factors. Interlingual motivation involves those lexemes whose production can be traced to L1 transfer. Intralingual motivation relates to those items whose probable source lies within the target language itself, involving for example a particular collocation or confusion between two target language words. In all, 32 of the 59 NICLE non-deliberate text level novel metaphors can plausibly be attributed to L1 transfer. The motivation for the 27 remaining NICLE metaphors together with all 18 LOCNESS metaphors referred to in Table 20 is intralingual.

6.7.1 L1 transfer

L1 transfer manifests itself in one of four ways in my material, all of which are instantiations of lexical anomalies on the text level. These include *calques*, two of the three subcategories of formal misselection (*totally deceptive cognates* and *partially deceptive cognates*), and some of the lexical items classified under the category *confusion of sense relations*.

6.7.1.1 Calques

Calques involve the transliteration of a standard Norwegian expression (in the case of the present study) into a non-standard English term. The British students were writing in their

L1, which lowers the probability of transliteration in the LOCNESS corpus; any cases in the British material would involve reverse transfer, where an L2 (or L3, etc.) influences an L1. No such cases were uncovered in my LOCNESS data, whereas 12 instantiations of L1 transfer resulting in calques have been identified in NICLE. A prototypical instance is presented in (54).

(54) I mentioned earlier that I don't think that the life-pattern of people today gives less room for dreams and imaginations. ICLE-NO-BU-0002.1

The choice of *life-pattern* is a calque of the Norwegian term *livsmønster* [lit: *lifepattern*]. As such, it fits into the learner compensation strategy used to bridge a lexical gap which Poulisse calls *substitution plus*. Rather than merely replacing the intended word with another (a strategy known as *substitution*), substitution plus calls for some alternative coding in addition to substitution. Substitution plus is also referred to as morphological creativity because it involves word coinage and thus requires a bit more imagination by the writer than does pure substitution. Here, the alternative coding involves *foreignizing*, which Poulisse defines as being “when an L1 word is phonologically or morphologically adapted to the L2” (Poulisse 1993: 172). Norwegian is rich in lexemes which express variations of the concept which the writer here wants to express, including *livsstil* which parallels the English word *lifestyle*. Of the two Norwegian terms, *livsmønster* is much less frequent, with a total of only 16 hits in the LBK compared to 200+ concordances with *livsstil*. The difference between the meanings of the two Norwegian terms is subtle, where *livsstil* implies more of a personal choice than does the more impartial *livsmønster*.⁸⁵ The writer of (54) might simply have assumed that English holds this same type of nuance.

The example of *life-pattern* involves the construction of a novel compound, a pattern mirrored by several of the other calques in NICLE that include novel phrasal verbs and polywords rather than lexemes of one unit. Examples here include the novel multiword verbs *dream away* in (55) and *step out of* in (56).

(55) People are the same, and this is a need we have, to dream ourselves away, or to be creative. ICLE-NO-HO-0029.1

(56) We have built a chaotic and pressured environment by ourselves, and the only way to step out of this pattern is by changing our own views. ICLE-NO-AC-0001.1

Dream away, found a total of three times in the NICLE data, is ostensibly a calque of the Norwegian reflexive verb *drømme seg bort* [lit: *dream oneself away*], whereas *step out of* is likely to be an English rendition of *skritte ut av*, a phrase which can be used to refer to

⁸⁵ Thanks to Lars Anders Kulbrandstad for pointing this out, as well as mentioning *livsførsel*, *levemåte* and *levevis* in this regard.

either literal or metaphorical movement.⁸⁶ Further examples of calques involve (generally) longer expressions in which the meaning of the core element, the verb, has been twisted in a way not included in the standard English lexicon, but which follows conventional Norwegian patterns. Examples include the expression *to find place* from Norwegian *å finne sted* [lit: *to find place*, Eng: *to happen, to take place*] in (57) and *thoughts live their own life* in (58), involving a personification of “thoughts” with the corresponding novel linguistic metaphor *live*.

(57) Some major reasons to this are the development of science technology and the industrialisation which have found place with swift speed during the last decades in our society ICLE-NO-BE-0002.1

(58) In contrast to the stressed and chaotic world that is surrounding us, there is no doubt that the possibility of being able to let your thoughts live their own life for some stolen seconds during our busy everyday life, are extremely appreciated to us all. ICLE-NO-BE-0009.1

To elaborate on one of these examples, the expression in (58) is a direct translation from the Norwegian *tanker lever sitt eget liv* [lit: *thoughts live their own life*], even down to the syntax with the singular *life* despite the plural *thoughts*. Such a construction is readily located in the Norwegian corpus LBK, as in (59), whereas there is not a single instantiation of the collocations *thoughts live* or *thought lives* in the BNC.

(59) Han elsket å sitte i den glødende dampen, et rom utenfor tiden, der alle tankene forsvinner, de svever oppunder taket, vikler seg inn i hverandre - til slutt er det så mange av dem at man ikke lenger kan føre dem tilbake til hodene de kom fra, forbindelsene brytes, og tankene lever sitt eget liv, de finner sammen i nye tankerekker, som aldri har vært tenkt tidligere. SK01MiMa01
Translation: He loved to sit in the hot steam, a room outside of time, where all thoughts disappear, they float beneath the ceiling, twist themselves together – finally there are so many of them that one can’t even lead them back to the heads where they came from, links are broken, and thoughts live their own lives, they come together in new thought sequences, that have never before been thought.

Although *live* is a novel linguistic metaphor because its codified (dictionary) meaning relates to animate entities only,⁸⁷ a WebCorp search does produce one concordance with the phrase *thoughts live their own lives* (not singular *life*), presented in (60).

(60) Therefore thoughts live their own lives and you get whatever the winds blow, as these thought patterns determine your reality and therefore your results in life!⁸⁸

⁸⁶ An example *skritte ut av* employed in its literal sense: *Det er bare å skritte ut av kjøya...* [lit: it is just to step out of bed... / Eng: *All you have to do is get out of bed*...] <http://www.vg.no/nyheter/utskriftsvennlig/?artId=267398> (Retrieved March 4, 2010). An illustration of its metaphorical usage: *...unge mennesker på vei til å skritte ut av tenårene* [lit: *young people on way to to step out of the teenage years* / Eng: *young people who are leaving their teen years behind them*] <http://morgenbladet.no/apps/pbcs.dll/article?AID=/20090904/OBOKER/83614998/0/DEBATT> (Retrieved March 4, 2010).

⁸⁷ *Life* is a conventional metaphor here, from MED5: “the period of time during which something exists or continues.”

⁸⁸Source: <http://www.nlpworld.co.uk/nlp-master-practitioner-quantum-linguistics> (Retrieved March 20, 2009).

This sentence is located in a text which revolves around philosophical ruminations, and is prone to colorful language with metaphorical twists. The expression in (60) would thus seem to instantiate deliberate novel metaphor on the basis of the multiple metaphor criterion of deliberate metaphor, unlike that in (58).

6.7.1.2 Formal misselection

Formal misselection consists of three types, two of which – *totally deceptive cognates* and *partially deceptive cognates* – also involve L1 forward transfer.⁸⁹ Of these, there are fewer totally deceptive cognates in my data. Only two such examples have been uncovered in NICLE, one of which has already been mentioned as (17) in section 4.6.1, in connection with the discussion of the efficacy of MIP when applied to learner language. For the sake of convenience, the same sentence is repeated here as (61).

(61) It is in this huge spectre of merchandise and inventions we find ourselves stuck with things that are not as important as the people that surround us. ICLE-NO-AC-0001.1

The term *spectre* is a foreignizing of Norwegian *spekter* [translation: *range*], where the writer has anglicized its spelling by changing the *k* to a *c* and modified the ending to follow the patterns of words like *theatre*. There is a possibility, of course, that this case represents a substance level error, a written misencoding where *spectre* has been confused for its phonetic near-miss *spectrum*, but given the fact that the Norwegian equivalent of the target lexeme is so close in orthography to the chosen term, I lean towards the false friend factor as the deciding component. It could also be noted, however, that the range of Norwegian *spekter* is broader than that of the English *spectrum*. The basic meaning of *spectrum* relates to color, a sense which is extended through metaphor to MED1: “the whole range of ideas, qualities, situations etc that are possible,” i.e. *spectrum* is employed to refer to a variety of abstract entities. Norwegian *spekter*, by contrast, refers to either abstract entities or concrete entities. Had the writer referred to a dictionary such as *Ordbnett* which only offers *spectrum* as a correspondent to Norwegian *spekter*, then she still would have ended up with an inappropriate lexical choice, albeit one unlikely to have raised many eyebrows. The BNC, for instance, also shows some few instances of *spectrum* with concrete entities, as in (62).

(62) This house has recently been refurbished to show a broad spectrum of animals without backbones, correctly called invertebrates. AM2 265

Partially deceptive cognates include pairs of words, one in Norwegian and one in English, which involve both linguistic similarity (that is, they somehow look alike) and conceptual overlap. Although their meanings coincide to a certain extent, they also diverge

⁸⁹ Instances of the third type, synforms, are discussed in section 6.7.2.1.

at some point. Consequently, while totally deceptive cognates involve linguistic transfer only, partially deceptive cognates could also reflect conceptual transfer. Examples include *stand* in (63) and *fix* in (64).

(63) And I believe that we will continue to encourage the use of creative thinking and that it will last through time, the methods might change but the message will stand. ICLE-NO-AC-0013.1

(64) They are called “Nintendo” and “Play Station” and can easily be attached to the TV, so the children can fix it themselves when they want to play. ICLE-NO-BU-0002.1

MED9 shows the basic meaning of *stand* is conventionally extended to denote a sense related to “remaining,” but only when applied to law, offers or records. The novelty of the metaphorical use of *stand* in (63) is thus a consequence of its collocation with *message*. The Norwegian translation correspondent of the basic physical sense of the verb, *stå*, is more versatile. It can readily be employed in combination with *messages* or *ideas*, as the LBK sentence in (65) illustrates.

(65) Man ønsker å fremstå som tolerant og ikke fordømmende, men man dobbeltkommuniserer, og budskapet som blir stående er at banning er problematisk. SA02HaIn01

Translation: One wants to come across as tolerant and not condemning, but one sends a double message, and the message that endures is that cursing is problematic.

The Norwegian word *fikse* [translation: *fix*], however, has a different pedigree, having entered the Norwegian language via English *fix*.⁹⁰ There are nonetheless slight differences between the two words, one of which likely provides the motivation for the use of *fix* in (65), where something like *the children can manage things themselves* constitutes a more standard alternative in this case. Although both verbs have an extended metaphorical sense of *arrange* (or *ordne* in Norwegian), *fikse* can be employed in a broader range of contexts than *fix*. More precisely, *fikse* can connote *managing* in addition to *arranging*. The distinction is one of succeeding in doing something (*manage*) rather than merely making plans for doing something (*arrange*), as exemplified in (66), retrieved from the LBK.

(66) Fikser du å rydde opp i tankene går spillet din vei. AV99NG0403 (about golf)

Translation: If you manage to straighten out your thoughts then the game will go your way.

Logic dictates that such partially deceptive cognates would pose greater challenges for L2 English writers than totally deceptive ones because in some contexts the former are indeed appropriate translation equivalents for one another. A natural tendency is to assume that the two terms are perfect translation correspondents, appropriate mutual renditions in all contexts. Such pairs only become problematic in connection with certain relatively unpredictable metaphorical extensions that do not correspond in the two languages. As

⁹⁰ Source: *Ordnett's Fremmedordbok* [Dictionary of Foreign Words], part of www.ordnett.no

Philip suggests, the source of misalignment may be the different linguistic encoding in the two languages, rather than underlying conceptual differences.⁹¹

6.7.1.3 Interlingual confusion of sense relations

Finally, certain semantic errors of lexis can also be motivated by the L1. As mentioned in section 6.3.2.2, the identified motivation for the production of some lexical items has been attributed to *confusion of sense relations*, where a less appropriate co-hyponym or synonym is chosen. In certain cases, this confusion may be prompted by the L1 and hence be the result of interlingual factors. Specifically, such mismatches are caused by divergence, where an L1 item is translated by two or more L2 items.⁹² Hasselgren offers a relatively simple test for divergence as a factor in inappropriate lexical choice in the target language: if the L2 item produced and the L2 item judged to be appropriate can be translated as the same L1 item in some context, then divergence is a factor (Hasselgren 1994: 244). Obviously, this type of test opens up various issues concerning, for example, translation correspondence and contextual appropriateness, but it is nevertheless sufficient as a rule of thumb.

A textbook example of a case instantiating such interlingual confusion is the choice of *liberate* in place of *free* in (67).

(67) All this technology and industrialisation are supposed to be tools for us. They are supposed to help us, not make our lives more complicated. They are supposed to liberate time, so that we have more time to do what we wish to do. ICLE-NO-HO-0029.1

The verb *frigjøre* corresponds to several English verbs which are near-synonyms: *liberate*, *emancipate*, and *free*. Moreover, the Norwegian collocation of *frigjøre* and *tid* [translation: *time*], illustrated in the LBK sentence in (68), is not unusual.

(68) Forskningsmidlene frigjør mer tid til forskning og publisering, som igjen gjør at det blir lettere å få nye forskningsmidler . AV03Un0505

Translation: Research funding fres more time for research and publication, which in turn makes it easier to get new research funding.

The collocation of *liberate time* would consequently appear to be directly motivated by the expression *frigjøre tid*. Divergence, where the verb *frigjøre* can be translated by one of several English lexemes, accounts for the writer's inappropriate choice, perhaps reinforced through dictionary consultation (*Ordnnett*, for example, does not list *free* as a possible translation correspondent of *frigjøre*). In English, however, time is not typically liberated. A WebCorp search of *liberat[ledning] [*] time* produces only two relevant concordances.

⁹¹ See section 6.3.2.3.

⁹² Further instances of sense relation confusion are attributed to intralingual causes, and have no links to the L1 of the writer. These cases involve confusion between pairs of words which are both found in the target language. Such intralingual sources of sense relation confusion are discussed in section 6.7.2.2.

Interestingly, one is written by the founder of the UK Network of Engaged Buddhists who characterizes himself as a “long-standing Zen and Ch’an practitioner.” His text, the introductory paragraph of which is quoted in (69) has decided philosophical and poetical overtones.

(69) What follows is time—mine to write it, yours to read it. It is about liberation from time-as-suffering, and about dancing with time as a Buddhist practice. It is about the liberating of time—yours and other people’s. And finally it is about liberation into time.⁹³

Judging by the use of extended metaphor, the collocation of *liberate* and *time* in (69) is deliberate. There are no such indications for the deliberate use of *liberate* in the NICLE instance.

Not all potential cases of interlingual sense relation confusion are as unambiguous. Consider the use of *erase* in (70).

(70) We will still be here in a thousand years, if we do not erase ourselves that is. ICLE-NO-AC-0001.1

Here, a more appropriate choice of lexis is *destroy* or *wipe out*. Possible Norwegian correspondents for the verb *erase* include *viske (ut)* and *slette (ut)*. There are no instances in the LBK of these expressions in reference to annihilation, although *slette ut* in particular is contextually appropriate in reference to the action of physically wiping something out. An example is presented in (71) where the protagonist is dragging a sack of some sort behind him to physically remove his tracks:

(71) Den skar en ujevn fure, som en gate i det myke underlaget, slettet sporene hans ut.
SK01FaKn03

Translation: It cut an uneven furrow, like a street in the soft layer, erasing his tracks.

Moreover, the verb *slette (ut)*, although itself restricted in its application to the physical action of crossing something out, is related to the verb *utslette* [translation: *exterminate, wipe out*], which does correspond to the sense of total eradication which the writer is trying to convey. In essence, the two verbs *slette ut* and *utslette* are co-hyponyms, the difference between the two amounting to the degree of removal (simply crossing out versus complete eradication). The pedigree of this particular NICLE novel metaphor is thus one of L1 transfer, where the NICLE writer chooses the less appropriate of two L1 co-hyponyms, leading to an inappropriate choice in the English text. *Erase* seems much too weak a word to meet the requirements of the context.

⁹³Source: <http://www.bpf.org/tsangha/jonestime.html> (Retrieved April 2, 2009).

6.7.2 Intralingual sources

Intralingual sources manifest themselves as the motivation for non-deliberate text level metaphors in four main areas, three of which relate to the lexical system of the language. *Synforms*, a formal error of lexis which James categorizes as formal misselection, can result in inappropriate lexical choices that have some consequence for metaphor. Semantic errors of lexis may reveal themselves through *collocation* or through *confusion of sense relations*. As discussed in the previous section, this last category may sometimes be motivated by interlingual sources, i.e. L1 transfer. In addition, however, many instantiations of sense relation confusion are due to intralingual confusion, meaning that two words, both of which are in the target language, are mistaken for one another. Some of these pairs seem to primarily affect NNS writing (independent of L1), some affect NS writing, and some appear in both NS and NNS writing. Finally, the fourth area which contributes to the numbers of intralingually-inspired errors concerns the grammatical system of English. It is possible for L1 transfer to be at the root of such error, as illustrated by the example of *experience* where English learners might not realize that the countability of the noun has semantic consequences. Nevertheless, none of the particular instances in my data which may plausibly be attributed to the grammatical system appears to be due to interlingual mismatches of this nature.

6.7.2.1 *Synforms*

There are two types of synforms, both of which affect L1 and L2 writers. The first type consists of those target language pairs of words which share morphological and/or phonemic features, together with semantic ones. Learners confuse the pairs presumably as a consequence of this double or triple similarity. An illustration of this type of synform is the pair *noticeable* and *notable*, where the former has been mistaken for the latter in both NICLE in (72) and LOCNESS in (73). James would subclassify this as the *prefixing* type of synform.

(72) It is noticeable to underline that we might have different interpretation of what dreaming and imagination is, and how it is expressed or made use of. ICLE-NO-BE-0019.1

(73) Several legal cases have already been fought, one of the more noticeable ones the suing of a tobacco company by someone who believed he contracted lung cancer before government health warnings. ICLE-ALEV-0016.8

The meaning of *noticeable* is grounded in the physical, being something that is easy to notice because it is “easy to see, hear, or feel,” (the definition from MED), and for this reason is clear or definite. The Norwegian use in (72) involves an extension into the abstract, where what is “noticeable” is either the fact that we may have differing

interpretations of dreaming and imagination or the highlighting of that fact. Neither are entities we can experience through our physical senses. In the LOCNESS instantiation in (73), we see the same type of concrete to abstract extension (although the act of *suing* is arguably more concrete than that of *having an interpretation*). In both cases, the intended item is *notable*, which MED defines as “unusual or interesting enough to be mentioned or noticed.” In other words, the two lexical items look alike, sound alike, and are similar in meaning, to the point where *notable* is defined with the help of the verb *to notice*. In my data we find both a Norwegian student and a British student who make the same error. Moreover, this same pair is the topic of concern for an L1 Spanish speaker from Columbia in the online language forum WordReference.⁹⁴ Taken together, this indicates that this error would seem to be a general one to which language learners of many L1 backgrounds are susceptible.

A second type of synform involves those word pairs that are phonetic near-misses which are frequently confused by many writers, despite a lack of shared semantic features. One alternative is to simply classify such cases as substance level errors, cases of actual misspellings which are confusibles. Some few errors, however, are so endemic as to cause one to speculate that sheer phonetic similarity does not provide a sufficient explanation – thus that the problem is greater than one of faulty spelling. A case in point concerns the distinction between *loose* and *lose*, one overlooked in two NICLE instances in my data, as in (74). According to James’s typology, this is an illustration of the *consonant-based* type of synform.

(74) It has probably been like this though for all ages, - that grownups loose their imagination.

ICLE-NO-AG-0007.1

Although my only cases involving the pair are both found in the Norwegian material, this pair is known to present difficulties for both native and non-native speakers of English, and is a point which provides fodder for language mavens:

I’m not sure what happened in 2005 to cause 80% of the English-speaking world to suddenly forget the difference between loose and lose, loosing and losing. [...] I automatically flinch as soon as I see the word “loose” in a manuscript or student paper. I expect it to be wrong, and it usually is. (Pinder 2005)

One proposed explanation for the error in NS writing is “simple carelessness.”⁹⁵ Given the widespread occurrence of the confusion between *loose* and *lose*, however, allocating blame to sheer carelessness seems a bit of a stretch. Some wonder whether language users are

⁹⁴ Source: <http://forum.wordreference.com/showthread.php?t=980906> (Retrieved March 4, 2010).

⁹⁵ Source: <http://www.elearnenglishlanguage.com/difficulties/looselose.html> (Retrieved March 26, 2009).

simply unaware of the existence of two distinct words with their separate syntax, morphology, and pronunciation.⁹⁶ This last point is perhaps especially relevant for Norwegians, because the two words are phonological minimal pairs. Their single phonemic difference of /s/ and /z/ presents problems to Norwegian speakers because Norwegian lacks the /z/ sound. This adds credence to the possibility that some NNS speakers might not be aware of the divide between the two words, and that the confusion here is consonant-based. An additional possibility, that learners believe the difference is simply one of style, is raised by a Kenyan language blogger who attempts to remedy the situation by explaining the following:

The two are not synonymous verbs. Using them as such is not a stylistic choice. It is simply wrong. (Gukira 2008)

6.7.2.2 Confusion of sense relations (NNS, NNS & NS, NS)

In addition to sense relation confusion triggered by the L1 (discussed in section 6.7.1.3), confusion can be prompted by word pairs which both belong to the target language. Some pairs seem to pose problems mainly for NNS speakers, irrespective of their L1, such that language transfer cannot be said to be the cause. One example concerns the distinction between the verbs *abandon* and *desert*. Consider the use of *abandon* in (75).

(75) The reasons for and contents of these reveries have been changed throughout history, but they have always been with us, and are highly unlikely to ever abandon us. ICLE-NO-BE-0010.1

According to MED, the agent of the verb *abandon* is an animate entity, typically a person. Here, however, the “abandoner” is *the reasons for and contents of these reveries*, in effect a novel personification. A WebCorp search for examples of collocates of this verb uncover no corresponding examples. The intended meaning of being “left behind” is better conveyed by the verb *desert*, whose conventional collocates are not so strictly circumscribed. A conventional metaphorical extension of *desert* is MED4: “if a feeling, quality, or skill deserts you, you suddenly no longer have it,” a definition which more closely suits the context. This particular challenge is not one restricted to Norwegian L2 speakers of English, as discussions in online language forums attest. One Chinese learner of English, for example, writes, “My God! These three words [*abandon*, *desert*, and the more formal *forsake*] really puzzled me! ...[I]t is a nightmare for foreign learners.”⁹⁷

⁹⁶ See, for example, <http://uk.answers.yahoo.com/question/index?qid=20100119104202AAAnVAuX> (Retrieved March 4, 2010) for a number of other theories.

⁹⁷ Source: <http://forum.wordreference.com/showthread.php?t=756911> (Retrieved March 19, 2009). See also an EFL forum at <http://www.english-test.net/forum/ftopic5662.html> where the *desert/abandon* distinction is also discussed (Retrieved February 25, 2010).

Other word pairs present challenges to both NNS speakers (again, irrespective of L1) and NS speakers. One such example concerns the difference between *discover* and *invent*. There are three such cases in my data, one from NICLE in (76) and two from LOCNESS, one of which is presented in (77).

(76) All the way back to when the electricity, telephone, TV and of other different things were discovered. ICLE-NO-AC-0009.1

(77) The human brain is in no way made redundant by the invention of the computer and I think that it will be a long time before the technology is discovered to make a electronic machine which will compete with the brain to achieve one of its functions never mind all of which the human brain is capable of doing. ICLE-ALEV-0003.6

The intended lexis here is the verb *invent* with its sense of creation, as opposed to *discover* with its sense of simply finding out about something that is already in existence. With respect to the NICLE instantiation, L1 transfer as possible motivation is excluded, as the Norwegian language has the same distinction between *discover* and *invent* in the verbs *oppdage* and *oppfinne* respectively. A search of the LBK reveals no instance where *oppdage* is employed to mean *oppfinne*. In the few cases where *oppfinne* is employed in the sense of *discover*, it is with a note of irony. Consider (78), for example, which also avails itself of the overt metaphor marker *så å si* [translation: *so to speak*], thereby indicating the deliberate nature of the lexical choice.

(78) Da kunne han plutselig være der, med mange hundre prosent, det var så å si han som hadde oppfunnet denne svakheten - som han tidligere i livet hadde opptrådt som han alene hadde oppfunnet vakre utsikter, lesverdige bøker og interessante mennesker. SA03ScAn01
Translation: Then he could suddenly be there, with many hundred percent, it was as if he so to speak had invented this weakness – like earlier in life he had behaved as if he alone had invented beautiful views, worthwhile book and interesting people.

In addition, Internet searches indicate that this problem is not restricted to any one language group, i.e. speakers of many L1s, including English, commit this same error.⁹⁸ Other such cases involve, for instance, the distinctions between *insure/ensure* and between *allow/permit*.

Lastly, some few cases would seem restricted to NS language alone, such as the distinction between *impregnate* and *insert*. Specifically, two separate LOCNESS writers mistake the former for the latter, as in (79).

(79) Genetic manipulation of viruses could mean that they could be used to carry usefull genetic information round the body and pregnate it into other cells. ICLE-ALEV-0024.8

⁹⁸ See, for example, <http://www.ecenglish.com/learnenglish/lessons/invent-discover-and-establish> Retrieved February 25, 2010) where the “confusing” words *discover*, *invent*, and *establish* are discussed in a forum for English language learners.

The basic meaning of *impregnate*, the most likely target item for the writer's non-standard lexeme *pregnate*, relates to the creation of a pregnancy.⁹⁹ Judging by a WebCorp search of *impregnate*, the basic sense is also by far the most frequent in use. A conventional metaphorical extension is MED1: "to make a substance such as a liquid spread all the way through something," as in "a pad impregnated with natural oils." Both the basic meaning and its metaphorical extension involve the insertion of one concrete entity into another concrete entity. The example in (79), however, refers to impregnation by the abstract entity of information and hence formally falls under the category of a novel metaphor. Further exploration confirms that the verb *impregnate* is a rather infrequent word, appearing in only 121 cases in the 100-million-word BNC, and moreover is part of a formal register. Here we could have a case where the LOCNESS writers simply overstretched their vocabularies, having a vague idea of what *impregnate* means, but not enough exposure to the word to properly judge its conventional boundaries. Thus, cases of sense relation confusion which appear to be limited mainly to the NS variety of English may be primarily due to the infrequency of the lexeme in question, combined with topic choice. The verb *impregnate* is hardly likely to appear in the Norwegian essays, seeing as how their texts do not deal with any topic which would naturally trigger such lexis.

6.7.2.3 Collocation

The field of collocation is a vast one, and James's suggested three types of possible collocation errors – *semantically determined word selection*, *statistically weighted preferences*, and *arbitrary combinations* – only just scratch the surface. Still, this typology can offer the means for a preliminary evaluation of the possible extent of NS and NNS differences. In all, eight NICLE tokens have been classified in this category, as opposed to only two LOCNESS cases. The majority of the NICLE cases fall under the label of arbitrary combinations, concerning for instance causative or delexical verbs. Norwegians, for example, are prone to confuse the verbs *do* and *make*, as illustrated in (80).

(80) Things we look upon as very necessary, such as e-mail and mobile phones are actually guilty of doing our lives more busy. ICLE-NO-BU-0003.1

This error is a result of divergence, as Norwegian has only one verb, *gjøre*, which corresponds to both English verbs. Holtedal maintains, for instance, that the *do/make* distinction is problematic for Norwegians due to 1) the fact that English "logically" uses two verbs which correspond to a single Norwegian verb, 2) the varying grammatical

⁹⁹ The reasoning behind the decision to analyze a word like *pregnate* on the basis of the meaning of the presumed target *impregnate* is outlined in section 6.3.2.1.

function of the two verbs, and 3) the fact that the two verbs are employed (“illogically”) in many idiomatic expressions (Holtedahll 1980: 135-136). The result is the creation of a causative *do*.

Two NICLE instantiations from separate texts which fall into the *semantically determined word selection* type appear to be unsuccessful attempts involving the idiom *to see the light of day* and are cited as (81) and (82).

(81) The author Jules Verne already wrote about travelling under water long before the first submarine saw the day. ICLE-NO-AG-0011.1

(82) One invention has made it possible for another to have seen the light. ICLE-NO-AC-0013.1

In (81), the intended idiom meaning “to come into existence” has been rendered simply by *to see the day* – an expression in its own right, as in “I thought I’d never see the day!” Here, however, we have a novel personification, as submarines are not able to undergo this type of experience. Similarly, “see the light” is an idiom which typically refers to the action of being enlightened, something inappropriate in the context in (82) involving inventions – again, a novel personification. This type of approximation seems to be a mistake which NS writers are not prone to make, although it is difficult to gather any concrete evidence attesting to this, as per Fillmore’s contention of there being no starred examples in corpora (a point discussed in section 3.2.1). There are no corresponding examples in LOCNESS, and I have not been able to uncover any evidence in WebCorp. What distinguishes these cases from calques, for example, is that there are two Norwegian phrases, *å se dagens lys* [lit: *to see the day’s light*] and *å se lyset* [lit: *to see light the*], which closely parallel the two English idioms, both in meaning and in lexico-grammatical structure. Despite this, neither student has succeeded in producing the appropriate pattern in English. Both cases include only two of the three key words in the intended idiom, opening the possibility that the true source for these inaccuracies might be imperfect recall of an English expression the students have already encountered.

One LOCNESS writer displays the opposite problem in (83), apparently being tempted by the familiarity of a collocation and reproducing it indiscriminately, seemingly without regard to meaning.

(83) However, this is killing the imagination of children and they spend hours sat at a keyboard tapping away in the doom and gloom of the house. ICLE-ALEV-0008.6

Here the writer refers to the darkness of the home, the target thus being the basic meaning of the noun *gloom*. It appears, however, the writer is not content with the one word alone, but is compelled to employ the expression *doom and gloom*. This is a common collocative pairing, an irreversible binomial, which refers to a feeling of depression or hopelessness

about a situation. Indeed, a WebCorp query for collocates of *doom* reveals that *gloom* is its single most frequent collocate. Part of the attraction of the pairing perhaps lies in its familiarity, which may have resulted in lexical priming causing this writer to avoid employing one word without the other. The homophonic similarity of two words lends itself to pairing. As a house cannot “possess” any such feeling of dread, the use of *doom* represents a novel usage.

6.7.2.4 Grammatical sources

Errors that have some import for metaphor identification which can plausibly be attributed to issues concerning the grammatical system of English are only found in the Norwegian texts, where there are six such cases. They result from differences arising from, for example, the “countable/uncountable” versus “singular only” distinction (e.g. *essences* for *essence*), the “plural” versus “singular only” distinction (e.g. *contents* for *content*), or from the inappropriate addition of a particular prefix (e.g. *outdistance* for *distance*) or suffix (e.g. *stressed* for *stressful*). By way of example, consider the sentence in (84).

(84) Our modern world is becoming a place where stress, health problems caused by over working, and little time are the main essences of our lives. ICLE-NO-AC-0001.1

As dictionaries makes clear, there is a crucial difference between singular *essence* and countable/uncountable *essence*. The former refers to the most important part of something, likely the actual target lexeme in (84). The *-s* suffix on the word, however, changes matters considerably, such that the writer here creates an unintended novel metaphor, comparing health problems to the condensed liquid derived from a plant (the definition of countable/uncountable *essences* in MED). This instance demonstrates that defective $A=B$ metaphors need not uniformly signify deliberate metaphor.¹⁰⁰ Here we see that syntactic considerations at times lessen the likelihood of intentional lexical innovation.

6.8 Non-deliberate metaphors: non-conventionalized

Three NICLE metaphors and 22 LOCNESS metaphors, 25 in all, appear to be neither deliberate in terms of conscious production nor inadvertent in the sense of being errors with the potential for metaphorical interpretation. Nor would they appear to be unattributed quotations. Investigation of the various instantiations reveals that these 25 remaining instantiations fall into one of three types. First, two metaphors, one in each corpus, can be accounted for as examples of a particular jargon. Second, one metaphor in NICLE could perhaps best be attributed to collocation, more precisely to semantically-determined word

¹⁰⁰ Note also the example cited as (30) also contains a defective $A=B$ metaphor which is unlikely to have been deliberate: *Gene manipulation and gene technology is a vast field of study...*

selection. Unlike the metaphors categorized as inadvertent which are (most likely) essentially errors, however, this lexical choice is not contextually inappropriate. Third, the vast majority involve one particular conceptual metaphor: MACHINES ARE ANIMATE. This conceptual metaphor accounts for only 1 of the 3 NICLE metaphors, but for 21 of the 22 of the LOCNESS metaphors.

To elaborate, in both (85) and (86) we see examples of jargon.

(85) The closest that can happen is for a programmer to invent an appropriately complicated set of instructions (an algorithm) that will deliver an approximation of a set of random numbers. ICLE-ALEV-0002.6

(86) Thomas Hardy's poem "The Darkling Thrush" seems to consider the loss of romance. ICLE-NO-AG-0017.1

Neither the contextual meaning of *deliver* in (85) nor that of *consider* in (86) is lexicalized in contemporary ESL dictionaries such as MED or LM, meaning that such metaphorical extensions are ostensibly novel. Indeed, I – an outsider to the field of mathematics – would have preferred *produce* to *deliver* in (85). However, Internet searches offer evidence that the collocation of *algorithm* and *deliver* is not unusual. This seems to be a specialist use of the verb not covered in a general language ESL dictionary, analogous to MED8: "computing: if a computer delivers a particular amount of power, speed, or effectiveness, it makes it available for you to use." Similarly, although I tend towards viewing the use of *consider* in (86) as a novel personification of the poem, a WebCorp search of the string *poem considers* results in numerous correspondences. This indicates that the phrase involves a conventional personification from the discourse of literary analysis which is not codified in general English language dictionaries, perhaps not yet having the necessary frequency to warrant inclusion.

Cameron (2003: 112-115) touches upon this type of language in her discussion of conventionalized metaphors, concluding that conventionalization actually involves a complex system which partially depends upon the discourse community to which one belongs. *Technical language*, much of which is metaphorical in origin, frequently marks particular discourses. As an example, Cameron points to personification metaphors common in the field of geology (e.g. *there are sedimentary rocks (.) which are laid down*). More frequent than this type of technical language is *sub-technical language*, illustrated by lexis related to basic mathematical operations (e.g. Addition: *gives/makes/carry the one*). As she elaborates, "These metaphors might sound quite novel or vivid to an outsider..., but are familiar to group members through previous shared experience" (Cameron 2003: 113). Although ESL dictionaries geared towards the acquisition of general English tend to

adequately reflect the conventionalization of many metaphors, certain specialist terms restricted to a particular field may not be included, despite their conventionality in that branch.

The second type of novel metaphor which falls into the rest category is illustrated by the use of *wielding* in (87).

(87) In our society I think the opportunity to escape from real life and spend some time with your own dreams and thoughts is a necessity, because wielding your imagination do not cost you anything, which differs greatly from the materialistic world where we have to pay for almost everything. ICLE-NO-BE-0002.1

This basic meaning of the verb *wield* is MED2: “to hold a weapon or tool and use it.” A conventional metaphorical extension of this basic meaning is MED1: “to have and be able to use power or influence” Thus, *power* and *influence* (LM adds *authority*) can be figuratively manipulated, analogous to physical manipulations of a tool or weapon. *Imagination*, however, is not included in any typical collocative patterns associated with the verb *wield*. The notion of imagination as tool/weapon is innovative (as indicated by lack of codification in standard dictionaries) yet not inappropriate, and has also been used by other writers; for instance, a WebCorp search of the string *wiel[dlds/ding/ded] * imagination* yields 35 concordances. The use here is thus not inadvertent, in the sense of representing an erroneous use of the verb. Nor can it be said to be deliberate, as the context bears none of the earmarks of deliberation: no extended metaphor, no flagging, no mixed metaphor, no defective *A=B* metaphor. Hence, this type of non-conventionalized metaphor appears to represent a use which is either already conventional or in the process of becoming conventional, but which has not yet reached the pages of standard lexicons.

The final subtype of non-conventionalized novel metaphor concerns linguistic realizations of the MACHINES ARE ANIMATE metaphor. Deignan notes that this particular conceptual metaphor is common across a wide spectrum of genres, leading her to speculate, “It is possible that modern English generally tends to ascribe consciousness and volition to machines” (Deignan 2005: 140). Examples from LOCNESS are numerous and tend to involve computers which perform actions that are typically carried out by animate beings: computers work, teach, build, and show things. They communicate, fly, and make discoveries. They are also the objects of actions typically limited to humans. A few examples suffice:

(88) Computers can communiate with each other, fly planes, build cars, they may even be running the country next. ICLE-ALEV-0001.1

(89) Indeed computers are simply the result of what humans know and thus have instructed the computer to do. ICLE-ALEV-0006.1

In (88), the actual role of computers as instrument is confused with the role of agent, a case of personification. Such attribution of human qualities to non-human entities is also apparent in (89), where computers are “instructed” (an activity which typically requires humans on the receiving end) rather than “programmed.” The 19 remaining LOCNESS instances follow a similar pattern, with the single exception presented in (90).

(90) Also, in schools I feel that work should be done mainly by hand and calculators and computers should only be used minimally in mathematics in order to stop the production of computer addicts and again have normal people. ICLE-ALEV-0008.6

The “production” of human beings instantiates the opposite conceptual metaphor, PEOPLE ARE MACHINES, through which humans are in effect dehumanized. Although Lakoff and Turner contend that there is a sharp distinction between the PEOPLE ARE MACHINES and MACHINES ARE PEOPLE conceptual metaphors,¹⁰¹ I have chosen to conflate this one example with the MACHINES ARE ANIMATE category to 1) avoid the creation of yet another category and 2) highlight the link between two conceptual metaphors and their linguistic realizations. As Croft and Cruse suggest, there seems to be some interaction between the two domains involved, even if there is no bidirectional mapping of precise features (Croft and Cruse 2004: 203).

The fact that only one NICLE metaphor falls into this category appears to be a matter of topic choice rather than any other factor. Approximately 25% of the LOCNESS texts used in the current study are responses to a topic statement about computers and the human brain. Such a topic naturally triggers the production of text which specifically relates to computers; indeed, all 22 such LOCNESS instantiations are found in this 25% of the British texts which contribute to my data. Golden, in her study of metaphorical expressions with the Norwegian verb *ta* [translation: *take*] in the writing of L2 Norwegian learners, draws similar conclusions about the importance of topic when comparing the production of lexical units among groups (Golden forthcoming).

In any case, because this type of personification is rarely codified in dictionaries, either explicitly in the entries or implicitly through the illustrative examples, such instantiations have been classified as novel in their degree of metaphorical conventionality. Linguistic metaphors involving the personification of the computer are a recent

¹⁰¹ To specify, Lakoff and Turner write the following: “In MACHINES ARE PEOPLE, the will and desire of a person are attributed to machines, but in the PEOPLE ARE MACHINES metaphor, there is no mention of will and desire. What is mapped instead is that machines have parts that function in certain ways, such as idling steadily or accelerating, that they may break down and need to be fixed, and so on” (Lakoff and Turner 1989: 132).

phenomenon and, perhaps as a consequence, have been subject to scrutiny and criticism in modern times. Monin and Monin, for instance, view this personification metaphor to be subversive and dangerous on the grounds that even though we consciously realize that computers are not alive, the metaphors we use both reveal how our subconscious mind works and influence our thoughts. Fearing that people may thus come to conceive of computers as people with personalities, they claim “Such a distortion of reality may well hamper efficient use and inspire misdirected research” (Monin and Monin 1994: 287).

A categorization system of metaphorical conventionality that relies exclusively on dictionaries of contemporary English cannot distinguish those metaphors that once – in the recent past – were assuredly novel, but which are currently well on their way to becoming conventional. Indeed, sense division is acknowledged as a difficult field for lexicographers, something which becomes most apparent in an area that requires distinction between animate and inanimate entities (Krishnamurthy and Nicholls 2000: 87, 89). In particular, dictionary entries have been seen to be insufficient for defining the anthropomorphic uses of words, or as Krishnamurthy and Nicholls succinctly express it, “Dictionaries do not allow for the use of metaphor” (Krishnamurthy and Nicholls 2000: 94). The computer personification metaphor provides a case in point. Monin and Monin’s 1994 article warning of its dangers indicates that this was then a new phenomenon. In addition, both instances of scare-quoted deliberate metaphors in LOCNESS (already discussed in section 6.5.3) also concern the computer. This is seen in (42), reproduced here as (91) for the sake of convenience.

(91) Research in artificial intelligence, the attempt to produce a "thinking" computer, has grown massively in the last decade, yet we are little closer to producing any true artificial life for it.
ICLE-ALEV-0002.6

The scare quotes which serve to highlight the writer’s awareness of the figurative nature of the “thinking” indicate that the computer personification concept was perceived as not fully conventionalized. Still, although few such instantiations have been captured in contemporary dictionaries, Internet searches reveal that computer personification has become fairly ubiquitous, perhaps proportional to the increased use of personal computers. This type of novel metaphor would thus seem to have entered a transitional phase, where what were once clearly novel metaphors are quickly becoming conventional.

6.9 NICLE & LOCNESS: Attribution

Lack of attribution in a text is either deliberate or unintentional, so that this third category overlaps with the previous two. If deliberate, it is called plagiarism and is frowned upon. If

unintentional, it can be likened to a form of literary ventriloquism. Writing instructors recognize this as a familiar feature of texts written by novice writers.¹⁰² In a comparative investigation of NS and NNS writing, Howarth discusses the issue of attribution of sources, noting the occasional difficulty in distinguishing the writers' original language from that of others. While noting that NNS writers frequently resort to imitation, paraphrasing, and indirect quotation, he also maintains that this practice is part of the natural development of NS writing. That is, "the process of developing native-speaker competence in a new register is partly a matter of unconscious imitation, borrowing and assimilation" (Howarth 1996: 143).

Following Howarth's example, I exclude all direct citation from my data, together with those phrases that expressly matched the original questions posed to the students. The nature of argumentative essays arguably lessens the tendency to consult external sources in search of inspiration, thereby reducing the concurrent temptation to copy someone else's text. Consequently, plagiarism was not something for which I was actively on the lookout. In the final analysis, I find that two of the NICLE novel metaphors can best be ascribed to lack of attribution, one of which is quoted in (92).

(92) I love the world and all its problems. There are lots of small and dusty reasons for this... ICLE-NO-AG-0006.1

That no such cases in LOCNESS were uncovered may be the result of production conditions for the essays. The students faced typical mock exam conditions, something which significantly reduces the opportunity to consult outside sources and possible copying. Both of the NICLE instances are in the same text.

There is no doubt that the word *dusty* is employed as a novel linguistic metaphor in (92). There are no corresponding instances of this type of usage in either MED or LM, as all examples are of *dusty* + concrete item, in the "least" concrete being the sense of MED3: "used for describing a colour that is not bright because it has some grey in it" as in *a dusty pink*. The BNC has 699 instances of the adjective *dusty*, but excluding the examples of the MED3 sense and the few examples of *dusty smell* (presumably prompted by the presence of dust or dirt), there are only 10 cases of *dusty* + abstract entity. None include *reasons* as a collocate. Any blanket statement concerning the contextual meaning of *dusty* here thus presents some difficulties. Asking a group of people to interpret this statement results in a variety of responses. Individuals must employ conscious metaphorical processing,

¹⁰² Karen Lunsford: Following the red thread of writing instruction. Lecture at Hedmark University College, August 27, 2009.

presumably using the basic meaning of *dusty* as a starting point from which to deduce contextual meaning. The word *støvete*, the Norwegian equivalent of the literal meaning of *dusty*, also has no standard metaphorical extension which corresponds to the contextual use evident here, so L1 transfer is not a factor in this case. An Internet search, however, reveals the true source of this novel metaphor by bringing to light the following 1993 Buffalo Tom lyrics from their song “Suppose”:

I love the world and all it's (sic) problems
The pipes run from north to south
Lots of small and dusty reasons
Rehearse my part and venture out¹⁰³

The second novel metaphor falling into the category of attribution, the word *high* in the phrase *plain living and high thinking*, has a similar pedigree. Investigation reveals that this phrase apparently originates with Wordsworth, was propagated by the likes of Thoreau and Emerson, and was later adopted by the founder of the Hare Krishna movement as a motto.¹⁰⁴ Although both cases comprise novel metaphors, neither was originally penned by the Norwegian student in question. This writer has encountered the phrase elsewhere and incorporated these phraseological chunks into her own text. Imitation of this nature is technically a form of plagiarism, as it involves the representation of someone else's ideas or wording as one's own, without proper acknowledgement. There are, however, different types of plagiarism which are in turn accorded varying degrees of seriousness. The text is certainly not a continuous stream of plagiarized sentences which have been cut and pasted together. Rather, the original sources may have so inspired the writer that she has adopted the phrases as her own as part of the assimilation process that Howarth discusses. This case effectively demonstrates, however, that not all quotations are explicitly marked and that popular culture can play an unattributed role in novice language.

6.10 Concluding remarks

In summary, the Norwegian material contains more deliberate novel metaphors than does LOCNESS. If they are rare in NICLE, then they can be said to be exceedingly rare in LOCNESS. The majority of such deliberate metaphors in NICLE, however, are found in a single text. These particular metaphors exemplify the multiplicity which Steen contends may indicate deliberate use. The very fact that there are so many novel metaphors within a single text indicates intent on the part of the writer. As frequency of use is encoded as a

¹⁰³ Source: <http://www.musicsonglyrics.com/B/buffalotomlyrics/buffalotomsupposelyrics.htm> (Retrieved April 2, 2009).

¹⁰⁴ Source: <http://soithappens.com/2008/06/24/%E2%80%9Cplain-living-and-high-thinking%E2%80%9D-an-english-lesson-with-srila-prabhupada/> (Retrieved February 9, 2010).

means to recognize this particular type of deliberate metaphor, it should come as no surprise that one text may be responsible for many instances of such metaphor. The extent to which this particular text should be regarded as an outlier, an exception to a general trend, is another issue. Rejecting this text for inclusion in my data on the grounds that it is unrepresentative of the typical nature of learner writing would nevertheless seem to be unwarranted as, in reality, novice writing necessarily encompasses a wide span of quality reflecting the individual skills of the writers. Moreover, such rejection would entail rejection of all cases of multiple metaphors.

There are also more non-deliberate novel metaphors in the NICLE material than in the LOCNESS texts. This may mainly be attributed to the greater number of substance and text level errors resulting in the creation of more inadvertent metaphors. Many of these inadvertent metaphors, in turn, involve L1 transfer. The most frequent realization of L1 influence in my material is calques created through the process of the transliteration of individual lexemes from the L1 to the target language, such as Norwegian *livsmønster* which becomes English *life-pattern* in (54), or of entire phrases, such as Norwegian *tanker lever sitt eget liv* calqued as *thoughts live their own life* in (58). The “interlingual misequation” (to again borrow the term from James (1998: 147)) of false friends in the two languages is responsible for the production of novel English metaphors. Partially deceptive cognates, such as the *stå/stand* pair in (63), appear to present more difficulties for Norwegian students, as these words share the same basic meanings but diverge in their metaphorical extensions. Such divergence may seem relatively minor upon first inspection, but nevertheless be sufficient to prompt the creation of a novel metaphor when the Norwegian writer employs the English variant in a context appropriate for its apparent Norwegian translation equivalent only. Ignorance concerning the lack of complete translation correspondence can lead to inappropriate lexis in a target language. Philip finds this same phenomenon involving very fine details in the English of Italian students, explaining that the lexical similarity between the two languages “can lead them into thinking [incorrectly] that the ‘same’ word not only has the same meaning and sphere of reference, but that it also attracts the same phraseological patterns” (Philip 2006b: 13). Totally deceptive cognates, by contrast, are rarer in my material, there being only two observed instances. Lastly, divergence where an L1 term can be translated into two or more L2 terms also account for certain cases of sense relation confusion. Here the less contextually appropriate of a pair of near-synonyms is employed, as when *liberate* is

employed instead of *free* in (67), ostensibly for the Norwegian verb *frigjøre* whose meaning encompasses those of both English lexemes.

No definite examples of deliberate L1 transfer of metaphor were uncovered in my material, that is, no intentional “unhousing” or ostrenie. In a sense, however, the interpretation of a metaphor involving, for example, the “liberation of time” as a non-deliberate metaphor brought about by factors of language divergence rather than as a deliberate metaphor which finds its inspiration in the L1 is to deny the student’s ability to consciously employ novel metaphor in an L2. A danger is that student-created lexical innovations be automatically rejected by teachers who assume error rather than intention, something which might seem hypocritical or inconsistent when one considers that instantiations of the same linguistic metaphors may be found in L1 English. The distinction between the L1 and L2 English uses, however, lies in the presence or absence of markers of deliberation. This has been demonstrated, for instance, by the contrast between the quotation with the “liberate time” collocation from a British practitioner of Buddhism in (69) with its use of multiple and extended metaphors, and the NICLE instance in (67) which lacks signs of deliberate use. Moreover, the use of the phrase *naked facts*, discussed in section 6.5.1, raises the additional question of how deliberate L1 transfer may be recognized. The word *naked* was judged as a deliberate metaphor adhering to the criterion of multiple metaphors; the phrase itself is a direct calque of the Norwegian phrase *nakne fakta*. These two facts are, however, insufficient to identify the collocation as deliberate transfer from the L1. Even though the writer may have deliberately intended metaphor and it would appear that L1 transfer may be involved in the choice of wording, whether the writer was consciously or unconsciously influenced by the L1 is nonetheless unclear.

In any case, instantiations of novel metaphor which can plausibly be traced to L1 influence appear to be motivated by linguistic transfer rather than conceptual transfer. The Norwegian and English languages share a cultural and linguistic background, and as such also share many of the same underlying conceptual metaphors. The cases of transliteration in NICLE, for example, involve word-by-word renditions of L1 linguistic terms that share the same conceptual structure of their conventional L2 counterparts, yet are lexically encoded in differing ways. By way of specific example, the same concepts underlie the NICLE expression *to step out of a pattern* in (56) and the conventional English expression *to break a pattern*, yet their lexico-grammatical structures clearly differ. The NICLE expression is novel because it lacks codification in the standard English lexicon, whereas the English expression is conventionalized in dictionaries.

Whether inadvertent non-deliberate novel metaphors are equally transparent, however, is another matter entirely (as is the question of conscious use). Indeed, one question related to metaphor identification in general concerns the extent to which the basic meaning is needed to interpret the target word (see page 82). Here there seems to be a rough hierarchy, where certain text level errors involving the lexical system (e.g. *erase* in (70) or *life-pattern* in (54)) are more or less transparent and hence presumably easily comprehensible, while those text level errors involving the grammatical system as well as substance level anomalies tend to be opaque. There is, for instance, no clear semantic link between *spectre* and its ostensible source *spekter* in (61), nor between *brake* and *break* in (48), raising questions about potential cross-domain mapping and hence, metaphoricity. A fallback solution is to decide that such “obvious” mistakes cannot be characterized as novel metaphor, but that in turn would lead to other potential problems revolving around the degree to which researchers can impose themselves on the text. The risk is that categorical rejection of such supposedly unintentional novel metaphors for consideration of metaphoricity in the language system would be based upon criteria assuming a degree of consciousness of metaphor use on the individual level rather than on linguistic criteria. It should also be recalled that MIP is the first of a five-step procedure intended to identify those words which *possibly* relate to metaphor. The four remaining steps are designed to identify the underlining conceptual metaphors. In any future subsection of these 95 identified NICLE and 54 identified LOCNESS cases to the rest of the five-step procedure, it is possible that some of them would ultimately be rejected as actually metaphorical in use.

A further point of note concerns non-deliberate metaphors which are non-conventionalized, as opposed to inadvertent, where LOCNESS instantiations far outnumber those in NICLE. The deciding factor accounting for this difference between corpora is topic choice rather than metaphor as such. As cases which have not yet been codified in standard dictionaries despite their demonstrably common usage, however, they raise important considerations about determination of metaphorical conventionality. A system that depends on general language contemporary dictionaries to gauge degree of metaphorical conventionality relies upon the accurate and updated judgement of lexicographers. As language is in constant flux, however, time lags between the period of novelty and that of conventionalization of a particular usage are inevitable. Moreover, lexicographers, who are faced with strict space restrictions, must evaluate meanings as both sufficiently frequent and sufficiently distinctive to warrant sense entries or illustrative sentences. The items captured in this non-conventionalized category would thus seem to be the process of

conventionalization from novel to entrenched usage, neither novel as demonstrated by actual usage nor conventional/dead as demonstrated by lack of codification in standard dictionaries.

7 The novel metaphorical prepositions in NICLE and LOCNESS

7.1 Introduction

Chapter 5 has shown that the use of prepositions by the NICLE and LOCNESS writers is comparable in terms of overall frequency. Where they differ is in the number of novel metaphorical prepositions. Specifically, NICLE has almost three times more such prepositions than does LOCNESS, a statistically significant difference. This chapter consequently investigates the various instances of novel use of metaphorical prepositions in detail, viewed in the light of congruence between English and Norwegian.

The chapter opens with section 7.2, which sets the scene by presenting a brief overview of traditional perspectives on prepositions and learner language. An examination of a variety of English grammar books intended for foreign language learners has facilitated the creation of a compilation of various challenges regarding preposition acquisition that learners must master. The prevailing belief is that there is no explainable motivation for preposition use. Section 7.3 makes clear that many articles on metaphorical analysis have also treated prepositions as either problematic or not important enough for in-depth study. This view has begun to change significantly in later years, however, with research such as that of Lindstromberg (1998) and Tyler and Evans (2003). Section 7.4 discusses metaphorical prepositions in a crosslinguistic perspective, as a means of evaluating language-specific uses of prepositions that may be linked to, for example, different ways of metaphorical spatial segmentation. To identify metaphorical prepositions, of course, the ascertainment of the basic meaning of prepositions is first required. Section 7.5 thus draws on previous work of scholars, in particular Tyler and Evans, to establish the fundamental characteristics of the basic meaning of a preposition, and explains how basic meanings were determined in the present study.

Section 7.6 deals with correspondence between Norwegian and English prepositions. First, prototypical correspondences between Norwegian and English prepositions are established by consulting grammar workbooks intended for Norwegian students and presented here. This correspondence list together with the aforementioned presentation of potential challenges for foreign language learners in general then allows for a discussion of the possible obstacles facing Norwegian students in particular when it comes to preposition choice. Section 7.7 turns towards the data at hand in NICLE and LOCNESS by giving an overview of the prepositions, in terms of both tokens and frequency, found in the two

corpora. Afterwards, a corresponding overview of the NICLE and LOCNESS metaphorical prepositions alone is presented. Section 7.8 focuses on the novel metaphorical prepositions found in NICLE, discussing them in terms of *congruence* between Norwegian and English construction – a term which is first defined and explained. The novel LOCNESS prepositions are then discussed in section 7.9. Finally, section 7.10 includes a summary and conclusions. Note that all the individual sentences containing the novel metaphorical prepositions identified in my material are presented in the appendix. Table 39 through Table 46 in the appendix presents the NICLE prepositions divided according to congruence type. Table 47 presents the LOCNESS prepositions.

7.2 Traditional perspectives on prepositions and learner language

Prepositions are defined by Huddleston and Pullum as “a relatively closed grammar class of words whose most central members characteristically express spatial relationships or serve to mark various syntactic functions and semantic roles” (Huddleston and Pullum 2002: 603), a pithy definition wherein the use of the word “various” conceals a multitude of challenges. Indeed, it is generally acknowledged that mastering the system of prepositions used in a foreign language is difficult. Thomson and Martinet, for instance, summarize the fundamental problem as twofold. First, the learner must figure out whether English requires a preposition in the context at hand. If a preposition is required, then the learner must settle upon the appropriate one (Thomson and Martinet 1991: 91). Judging by a variety of English grammar books intended for the foreign learner there would seem to be a number of potential obstacles the learner may confront in the process of deciding about preposition use. Such views are summarized in the compilation presented in Table 21.¹⁰⁵

Problems which learners experience with prepositions may also be compounded by the manner they are presented in textbooks and grammars. As an example, consider the following from a classic 1960 grammar:

Little guidance can be given in any grammar book as to which preposition is the right one to use, for there is no logical reason why one is right in certain contexts and another one is wrong. [...] We have thought it best, therefore, to give here some general remarks on prepositions and then to add numerous examples of the principal ones in sentences, with notes on the usage of those which may cause difficulty. (Eckersley and Eckersley 1960: 277)

Such views concerning the lack of motivation for choice of prepositions still prevail, as does the means of presenting English prepositions requiring the consequent rote memorization of

¹⁰⁵ The source of those challenges and examples marked with “S” is (Swan 1995: 436), marked by “T&M” is (Thomson and Martinet 1991: 91), marked by “A” is (Alexander 1988: 145-146), and marked by “M” is (MacDonald 1997: 108).

each instantiation of preposition use because there is neither rhyme nor reason to explain usage. As Tyler and Evans note, “There has been a tendency to adopt a partial homonymy position, primarily listing various meanings associated with a preposition” (Tyler and Evans 2003: 234). The obvious alternative, of course, is to avoid mentioning prepositions altogether, as is the case in for example *English Grammar: Theory and Use* (Hasselgård et al. 1998), an otherwise excellent textbook intended for Norwegian university students of English.¹⁰⁶

Table 21: Potential challenges in L2 preposition acquisition

Challenge	Example
(1) “Most English prepositions have several different functions... which may correspond to several different prepositions in another language.” (S)	A dictionary listing of 18 main uses of <i>at</i> (S) <i>at six o'clock</i> [time], <i>at the bank</i> [space] (A)
(2) “[A] single preposition in the student’s mother tongue may do the work of several different English prepositions.” (A)	There may be one preposition corresponding to <i>by</i> , <i>from</i> , and <i>of</i> (A)
(3) “In some expressions, English has no preposition where one might be used in another language; in other expressions the opposite is true.” (S, also mentioned in T&M)	“[I]n most European languages, purpose is expressed by a preposition + infinitive; in English it is expressed by the infinitive alone: <i>I came here to study.</i> ” (T&M)
(4) “Different prepositions can have very similar uses.” (S, also mentioned in A)	<i>in the morning</i> , <i>on Monday morning</i> , <i>at night</i> (S)
(5) There are certain fixed grammatical collocations between many nouns, verbs, and adjectives and a particular preposition. (S)	<i>the reason for</i> , <i>arrive at</i> , <i>angry with somebody</i> , <i>on a bus</i> (S)
(6) The same word form can jump word classes: “words used mainly as prepositions can also be used as conjunctions and adverbs.” (T&M)	<i>to</i> = preposition or infinitive marker <i>as</i> = preposition or conjunction

7.3 Prepositions and metaphorical analysis

The second issue at stake concerns the potential metaphorical status of prepositions. Some researchers do not view prepositions as metaphorical.¹⁰⁷ Indeed, if one considers metaphoricity in terms of conscious activation alone, this argument hits home. Prepositions are rarely consciously perceived as metaphorical. Invocation of the TIME IS SPACE conceptual metaphor to explain the use of the preposition in the phrase *on Thursday*, for example, is often met with a healthy dose of skepticism along the lines that the link between time and space in such cases is far-fetched and impossible to imagine – unlike, for instances, many of the instantiations of the TIME IS MONEY conceptual metaphor (e.g. *you’re*

¹⁰⁶ The prepositional phrase and its structure are, however, included in the Hasselgård et al. grammar textbook.

¹⁰⁷ Kay Wikberg, for instance, advanced this view in a lecture entitled “Metaphor, simile and corpus studies,” presented on January 27th, 2010 for the Corpus Linguistics Group at the University of Oslo.

wasting my time, I'm running out of time, etc.). Saliency thus typically plays an enormous role in judgments concerning metaphoricity. This is especially the case with the most non-depictable prepositions, notably *of* and *for*, which could be argued to have no clearly discernible basic sense, and thus no possible metaphorical extension. In such cases, I have chosen to follow MIP as precisely as possible, choosing the most concrete, physically-oriented sense as the basic sense for the benchmark used to compare contextual sense. For the moment, the analysis ends here; determination of the underlying conceptual metaphor (if any) is left to later investigation.

Not only are prepositions a problem with respect to learner acquisition, they are arguably the most notorious word class to deal with when it comes to metaphorical analysis. As a consequence, they have often been brushed aside in the literature. Traugott, for example, contends that “the metaphorical force of the preposition is minimal” (Traugott 1985: 47). Deignan comments on the difficulty of analyzing prepositions for metaphoricity, resulting from the general perception that “by their nature they are relatively empty of semantic content” (Deignan 2005: 50). Cosme and Gilquin contend that prepositions are often disregarded because they fall in the no man’s land between grammar and lexicon (Cosme and Gilquin 2008: 261). Kennedy remarks that “it is somewhat surprising that there have not been more corpus-based studies of how the [preposition] system is used” given its “high frequency and difficulty of acquisition” (Kennedy 1998).

Research in the field of cognitive linguistics attempts to explain the seemingly arbitrary meanings of prepositions by means of metaphor, through links between their various abstract senses and their basic concrete meanings. Even Traugott concedes that the spatial sense of the preposition *to*, for example, does exist although she argues that even when a spatial sense is recoverable, such prepositions are only “marginally metaphorical” (Traugott 1985: 47). Cameron, by contrast, contends that a physical/spatial sense as well as corresponding metaphorical extensions can clearly be identified for prepositions such as *from*, *off*, *through*, *on*, *on to*, *down*, *behind*, *in front of*, *into*, *after*, and *between* whereas others such as *of*, *for*, and *with* have become delexical, meaning that it is impossible to identify a basic sense (Cameron 2003: 73).

This study follows the general reasoning of scholars such as Lindstromberg (1998) and Tyler and Evans (2003), namely that there is an alternative to rote memorization of prepositions. The many distinct meanings of prepositions tend to be related in a systematic fashion. Tyler and Evans maintain that spatial prepositions display polysemy in that the varying senses of each preposition form a semantic network of distinct but related meanings

that radiate from a core sense. Motivation for the formation of a semantic network stems from a combination of experiential correlation and perceptual resemblance. Experiential correlation is related to embodiment, how the actual physical experiences we have shape our thinking. Perceptual resemblance relies on human perceptual organization strategies, i.e. how we link different concepts based upon a perception of their being related in some way. What we experience (experiential correlation) and how we perceive what we experience (perceptual resemblance) form the basis of conceptual metaphors which are then realized in language by linguistic metaphors (Tyler and Evans 2003: 32-36).

7.4 Metaphorical use of prepositions and the crosslinguistic perspective

Littlemore and Low (2006: 16) contend that there are times when the choice of preposition may significantly contribute to the overall message conveyed. Goatly cites just such an instance in Dylan Thomas' choice of the phrase *once below a time* in the poem "Fern Hill," concluding that this unpredictable collocation deliberately evokes the underlying POWER IS HEIGHT conceptual metaphor, thereby implying that we are subject to the dictates of time. Goatly adds that novel metaphors are a fairly common means used to create an entropic, startling effect in poetry. Other genres, by contrast, display a higher threshold for such metaphors (Goatly 2009). Indeed, language learners are seldom likely to intentionally twist the meaning of a preposition to achieve some sort of innovative effect. Rather, the metaphorical impact of the preposition is typically minimal. As has been mentioned in section 6.3.1, employment of the preposition *in* in a phrase such as *in 1999* does not represent an intentional mapping of the spatial domain onto that of time. Although such prepositions are metaphorical in use, they are not deliberate metaphors. In terms of Müller's dynamic cline based upon degree of conscious awareness of metaphor discussed in section 2.4.4, prepositions typically cluster near the *sleeping* end of the scale.

That said, it is nevertheless useful to investigate the metaphoricity of prepositions in a crosslinguistic perspective as a means of elaborating on language-specific uses, many of which derive from different metaphorical extensions in the languages. Although prepositions in most languages have seemingly clear translation correspondents, deviations occur due to different chains of reasoning leading from the basic sense (Cosme and Gilquin 2008: 261-262). As Dąbrowska writes, "In spite of the fact that spatial conceptualization is strongly constrained by the nature of the world and by our own psychobiology, there is tremendous variation in the way that different languages structure space" (Dąbrowska 2004: 99). Kemmerer too notes that although the TIME IS SPACE conceptual metaphor is quite

possibly universal, crosslinguistic variation exists as to which spatial aspects are linguistically coded and how they correspond to expressions related to time (Kemmerer 2005: 797). Although certain basic concepts such as those underlying locative terms are innate due to embodiment, languages carve up space differently. Most metaphorical extensions of prepositions rely on these initial spatial conceptions. Therefore, differing spatial conceptions may result in differing linguistic extensions. Dirven adds that this is true even of the “most related” languages (Dirven 1993: 96), so differences in this respect between two Germanic languages such as English and Norwegian are likely.

Tyler and Evans also remark on how languages may segment spatial scenes differently, which may affect a learner’s choice of preposition, seeing as how the basic meanings of most prepositions are spatial. Moreover, the same spatial relationships may be linguistically encoded in different languages by grammatical forms other than prepositions, a further source of crosslinguistic differences that add to the potential difficulties for language learners. They illustrate this last point with Finnish which uses case markings and Korean which has combinations of special nouns and verbs to encode spatial relationships (Tyler and Evans 2003: 234).

Cosme and Gilquin (2008: 260-261) maintain that a further source of potential language-specific uses of prepositions lies in the use of “bound” prepositions, which are subject to strict collocational restrictions because their choice depends upon the other words employed. Typical examples are prepositional verbs such as *confide in* and *rely on*. Biber et al. contrasts them with “free” prepositions whose use does not depend on any specific words in the text, moreover maintaining that “bound prepositions often have little independent meaning” (Biber et al. 1999: 74). Following this reasoning, the choice of bound preposition is idiomatic by being seemingly unmotivated. Cosme and Gilquin also point to research that has shown the lack of crosslinguistic correspondence between bound uses of words. That is, languages employ different bound prepositions and the appropriate preposition is difficult or impossible to guess: a perfect recipe for language learner problems.

Cosme and Gilquin’s study of *with* and French *avec* demonstrates that a crosslinguistic comparison into the bound and free uses of prepositions may prove fruitful. I contend, however, that the domains of metaphorical extensions and bound uses are not completely separate, thereby leading to two mutually exclusive language-specific uses. Rather, they complement each other. As an example, consider the phrase *confide in someone* along with its Norwegian equivalent, *betro seg til noen* [lit: *confide oneself to someone*]. Both employ prepositions of direction which specify the endpoint of a path, in

this case the endpoint being the recipient of the confidences. They differ, however, in that *in* constitutes an instantiation of the underlying container conceptual metaphor, whereby the “someone” may be metaphorically perceived as a receptacle for those confidences. As Lindstromberg explains, *in* “means specifically that the path *does* cross the boundary of the Landmark” whereas *to* is neutral in this regard (Lindstromberg 1998: 28). In short, even bound prepositions may involve metaphorical extensions.

7.5 The basic meaning of prepositions

Tyler and Evans discuss a methodology for the determination of the primary senses of spatial prepositions in some detail, agreeing with previous assertions to the effect that such prepositions do indeed have a basic sense and that other senses are derived from this core sense in a principled way. They suggest five separate criteria which, taken together, provide converging evidence to aid in the determination of a basic sense. Etymology is one factor, as the oldest sense is typically spatial. Second, predominance within the semantic network also plays a role. By predominance, they mean “the unique spatial configuration that is involved in the majority of the distinct senses found in the network” (Tyler and Evans 2003: 48). As an example, they explain that in the majority of the distinct meanings of *over*, the trajector is located higher than the landmark; this then is the prototypical configuration for *over*. Third, this configuration is partly defined in relation to a contrasting preposition, such that *over* for instance is partly defined by its contrast with *under*; the trajector/landmark alignment is the cause of the semantic distinction between the two prepositions (see also Langacker 2008: 71). Fourth, the primary sense will always have the possibility of being a component in composite lexical units such as compounds (e.g. *overcoat*) and phrasal verbs (e.g. *to look over something*). Finally, it should be possible to trace meaning extensions back to the primary sense (Tyler and Evans 2003: 45-50).

Lindstromberg, whose work on prepositions is intended as a user-friendly guidebook for teachers, students, translators, etc., keeps his explanations straightforward and simple. He distinguishes between literal and metaphorical meanings, where *literal* refers to both those meanings children first grasp and those meanings where the preposition refers “to the physical world, that is, to arrangements and orientations of physical bodies with respect to each other and to paths which they may follow with respect to each other” (Lindstromberg 1998: 18). The former criterion delimits what he calls the basic sense of a preposition, which he adds is the most salient in the sense that it “is also probably the meaning...which would most readily spring to mind” when asked to use the preposition in a sentence

(Lindstromberg 1998: 19). Assuming Lindstromberg is correct on this point, then prepositions function differently from lexical words, whose basic senses may not necessarily be the dominant senses as claimed by, for instance, Zgusta (see page 86).

The latter criterion concerning the preposition's reference to the physical is almost always true of not only the basic meaning but also so-called "secondary" meanings, which Lindstromberg defines as those meanings which are literal but less psychologically fundamental than the prototypical meaning.¹⁰⁸ By contrast, he writes that a preposition is used metaphorically when "a Subject and/or Landmark does not refer to a physical object or place, as in *He is in trouble...*" (Lindstromberg 1998: 15).¹⁰⁹ Lindstromberg maintains that the prototypical image of each preposition is a schematic mental image whose meaning can usually be depicted with the help of icons. For example, he depicts the basic meaning of the preposition *to* as shown in Figure 12, where *to* specifies the endpoint of a path.¹¹⁰

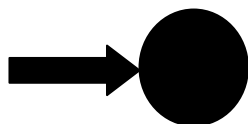


Figure 12: Icon depicting the prototypical meaning of the preposition "to"

The arrow is intended to signify the sense of movement intrinsic to the meaning of the preposition. He adds, however, that not all senses of a preposition are depictable, and that some prepositions (notably *of* and *for*) are not depictable at all (Lindstromberg 1998: 17).

As with all other words in the present study, the determination of both the basic meanings of prepositions and their conventional metaphorical extensions was accomplished by means of MIP, through reference to the two learners' dictionaries MED and LM. The various articles that have been published about MIP also proved helpful, as did personal communication with the VU researchers. Moreover, Lindstromberg's suggestions were also consulted. The basic meaning of most prepositions is relatively straightforward to determine, being grounded in space as Lindstromberg and Tyler and Evans suggest. For example, I contend that the basic meaning of the preposition *at* corresponds to MED1: "used for stating where someone or something is," and includes the subsidiary senses MED1a: "in a particular place," 1b: "used for saying where you stop on a journey," and 1c: "sitting or standing close to something, especially in order to do something as part of that basic

¹⁰⁸ An exception is *during*, discussed later in this section.

¹⁰⁹ Note that Lindstromberg prefers the term *Subject* to *trajector*, explaining that in the sentence *The candle is on the table*, "the candle" is the Subject of the preposition, "the table" is the Landmark, and the preposition itself tells us where the Subject is in relation to the Landmark (Lindstromberg 1998: 9).

¹¹⁰ When the lexeme *to* is referred to in discussions throughout this dissertation, then the preposition is intended unless the lexeme is overtly marked with "inf" for "infinitive."

meaning.” The fourth subsidiary sense, 1d: “in a particular place of a process, activity, programme, or book,” is however not part of the basic meaning as it involves an extension away from a physical location to an abstract, metonymical one. Lindstromberg holds that *at* cannot be depicted using icons, mainly because it is “imprecise about the relation between Subject and Landmark” as well as neutral about their relative sizes (Lindstromberg 1998: 165).

At is typical of many prepositions, in that many of its metaphorical extensions involve linguistic instantiations of the underlying TIME IS SPACE conceptual metaphor, as illustrated by the phrases *at 6pm*, *at the age of 42*, etc. Not all prepositions provide such clear-cut examples of a contemporary metaphorical mapping from the domain of space to that of time. For instance, if one adheres to Lindstromberg’s criteria concerning the first senses children learn and saliency, an argument could be made that the basic senses of both *after* and *before* relate to the domain of time. A search of 100 random hits of both prepositions¹¹¹ in the BNC indicates that the time sense is most frequent. Specifically, 89 concordances of *after* are linked to the domain of time and only 2 to space, the remaining instances being cases involving the expressions *to look after*, *to be after x*, and *after all*. Eighty-seven concordances of *before* relate to time, whereas 12 relate to metaphorical space (e.g. *facts fairly put before the reader* FFO 19) or literal space (e.g. *he was brought before a judge* CFG 49) space. In spite of such leanings, adherence to both Tyler and Evans’ criteria (see e.g. Tyler and Evans 2003: 164-169 on the semantics of “before”) plus MIP lead to the conclusion that the basic senses of *after* and *before* are indeed spatial. The preposition *during*, however, is one of the few prepositions which has never had any spatial sense, the earliest documented occurrence of the preposition in the OED being recorded in Chaucer and meaning *throughout the whole continuance of* (OED2). Thus, it is conventionally restricted to the domain of time and its basic sense relates to an abstract realm. Lindstromberg maintains that *during* means “some time between the beginning and the end” (Lindstromberg 1998: 130), although he offers no comment concerning how *during* clearly has a basic sense even though it has no sense fitting his stated criteria required for the literal sense of a preposition. A further point of note is that the basic meanings of two of the most frequently used prepositions, *for* and *of*, are difficult to pinpoint with any certainty, contributing to their lack of depictability.

¹¹¹ Set at one instance per text.

7.6 Correspondence between Norwegian and English prepositions

Because the present study focuses on Norwegian L2 English, it is advantageous to establish an approximate correspondence between the basic meanings of Norwegian and English prepositions to aid in determining the possible extent of any L1 transfer. Therefore in this section, a list of one-to-one prototypical correspondences between Norwegian and English prepositions is established, followed by a discussion of their implications for the acquisition of English prepositions by Norwegian students.

7.6.1 Basic correspondences between Norwegian and English prepositions

English and Norwegian are similar in that they both employ a wide array of prepositions. Golden and MacDonald, for example, write that “Norwegian has a rich selection of prepositions” (Golden and MacDonald 1990: 19, own translation) while Alexander claims that “English uses more prepositions than most other European languages” (Alexander 1988: 145). There is clearly a great deal of correspondence between the various senses of the many English and Norwegian prepositions, and to evaluate the magnitude of any L1 linguistic and/or conceptual transfer that may affect preposition production in an L2, it is first necessary to establish a list of such correspondences. A review of previously published works uncovers a rather nuanced and thorough listing in a grammar workbook intended for Norwegian upper secondary students, under a section dealing with the translation of Norwegian prepositions to English. Here, several English prepositions are offered as translation alternatives for each Norwegian preposition, with very brief explanations as to the necessary contextual differences in meaning as well as illustrative sentences. This list, minus the notes and examples, is reproduced in Table 22. In all cases, the first English preposition listed as alternative is the so-called “normal preposition,” by which the authors mean “the English that lies closest in meaning to the Norwegian, and which is therefore most natural” (Lysvåg and Johansson 1995: 125, own translation). This is intended as a list of what the typical Norwegian speaker might produce when asked to provide out-of-context translations of various Norwegian prepositions into English. The Norwegian preposition in the first column and the English preposition in the second column will hereafter be referred to as “basic correspondents,” meaning that their basic senses match and that they are perceived to be prototypical translation alternatives for one another. Strandskogen and Strandskogen supplement this list with two additional preposition pairs: Norwegian *mellom* for English *between* and Norwegian *før* for English *before* (Strandskogen and Strandskogen 1986: 156).

Table 22: Summary of “Norwegian prepositions: How to translate them”¹¹²

Norwegian preposition	“Normal” English preposition	Other translation alternatives
av	of	by, with, for, from, out of, off
etter	after	according to, for, by, from (up)on
for	for	to, by, worth of, of, Ø
foran	in front of	before, ahead of
fra	from	as of/from, from – to
gjennom	through	by, out of, over
hos	with	at, in, among, from
i	in	to, at, on, of, for, by, Ø
innen(for)	by	within, inside
med	with	by, in, of, to, Ø
mot	against	towards, on, to, from, versus/vs
om	about	on, in, round
over	over	above, across, beyond, of, past
på	on	at, in, for, with, of
til	to	towards, till/until, for, of, at, into, with, by
under	under	during, in the course of, below, beneath, in less than, not exceeding
uten	without	except (for)/apart from, out of
ved	at	by, near, on, about, in case of/in the event of

7.6.2 Implications for English preposition acquisition by Norwegian language learners

Norwegian learners of L2 English face a number of potential obstacles as far as English prepositions are concerned, just as is suggested in the various grammar books (see Table 21). First, a single English preposition can correspond to one of several Norwegian prepositions, depending on the relationship expressed. As an example, consider the preposition *with*, whose basic sense involves the accompaniment of a concrete entity. Illustrative examples from MED include *chicken pie served with vegetables and mushrooms* (MED1), *Servants would arrive with trays of tea* (MED2b), and *Stir the mixture with a spoon* (MED3), all of which exemplify variations of the basic concrete sense. Examining examples found in Lysvåg and Johansson (1995: 125-127), we first find a case which involves the basic sense of *with*: *Jean came with a friend of hers*. Here the preposition is best translated into Norwegian by *med*, which, as seen in Table 22, is the prototypical correspondent of *with*. In the sentence *She’s been with the Midland Bank for five years*, however, Lysvåg and Johansson suggest *arbeidet (worked) hos* as the best translation of *’s been with*. This equivalent of Norwegian *hos* involves a metaphorical sense of *with*, as the reference to the Midland Bank involves a figurative extension from the concrete sense of the

¹¹² Source: Lysvåg and Johansson 1995: 125-129, own translation.

actual bank building. When mentioning an involuntary action as in *She shivered with cold*, which also involves a metaphorical extension of *with* (in this case MED5: “what causes a particular reaction or state”), then Norwegian *av* is the translation correspondent. Thus, in the examples shown here, we see how correspondence between prepositions weakens as the contextual meaning shifts away from a core, concrete meaning to a metaphorical one. It should be added that this is a tendency only, rather than a hard and fast rule. For example, *med* is an appropriate translation of *with* in *She speaks with great confidence* even though this use of *with* is also metaphorical, due to the abstract nature of the complement *confidence*. In any case, each Norwegian preposition – *med*, *hos*, and *av* – focuses on slightly different aspects of “accompaniment,” all of which are rendered in English by *with*.¹¹³

Second, every Norwegian preposition, without exception, also corresponds to more than one English preposition. This is compounded by the fact that the zero preposition (\emptyset) is sometimes the most appropriate translation correspondent to the Norwegian preposition. An example of this type of non-congruence between the two languages is the phrase *for 16 år siden* which is best rendered in English as *16 years ago*, without any concrete correspondent of *for*. I contend that many teachers of English in Norway would nevertheless recognize the phrase *for 16 years ago* as typical student production. For an example of a single to multiple preposition correspondence, consider the Norwegian preposition *på*, whose use corresponds to three separate English prepositions in the following three cases:

1. Han er på fjellet. He is in the mountains.
2. Han er på skolen. He is at school.
3. Han er på taket. He is on the roof.

Norwegian students are typically explicitly warned of this triple correspondence, the general conclusion being that in such cases, learners tend to overuse the English preposition *on* (Austad et al. 1999: 97, examples 1-3 are also found here). Such an overgeneralization in choice of preposition likely results from a phenomenon which Arabski refers to as *underdifferentiation*; in instances where more than one L2 preposition corresponds to a single L1 preposition, there is a tendency for learners to simplify the L2 system by selecting one of those L2 prepositions as the primary counterpart. This perceived primary translation

¹¹³ Lysvåg and Johansson also add here that the preposition in *Harry lives with his uncle*, which involves the basic sense of *with* (MED1), is best translated not by *med* but by the Norwegian preposition *hos*. I would argue that this is a poor translation. Specifically, *hos onkelen sin* is the equivalent to at his uncle's [place], expressing where the “living” is done. The phrase *with my uncle* in the given sentence, however, offers no information about where Harry and his uncle live, only that – wherever it is – they do so together. A better Norwegian translation is thus *Harry bor sammen med onkelen sin* [lit: *Harry lives together with the uncle his*].

equivalent is then employed in many or all of circumstances appropriate for the L1 preposition (Arabski 2006: 15). The preposition *on* is the perceived primary counterpart of Norwegian *på*, and is therefore overused in Norwegian L2 English. The reason for such a perception is most likely due to their conceptual similarity, as the two prepositions share the same basic sense denoting the trajector being in contact with an upper surface. Such a shared basic sense, then, would seem to constitute the key factor for preferring one L2 preposition over another as the counterpart to an L1 preposition.

Ringbom identifies this as a type of L1 transfer, by which learners tend to assume a one-to-one crosslinguistic relationship between items. They consequently map L1 items onto L2 items in the process of language production. This type of oversimplification is especially typical of learners at an early stage of L2 acquisition, and results in both positive and negative transfer. Such learner assumptions, however, tend to be modified as learning progresses and a more nuanced picture of the L2 emerges (Ringbom 2006: 40). The overall level of transfer is affected by the nature of the two contrasting languages, i.e. the more closely related they are, the more transfer is likely to result due to similarity between both individual items and grammatical systems (Ringbom 2006: 39). One would thus expect a relatively high degree of both positive and negative transfer from Norwegian learners of English, with evidence of negative transfer diminishing with increasing English proficiency.

Kölmyr, however, explicitly creates a distinction between overgeneralization and L1 transfer as potential contributing factors to errors related to underdifferentiation: “Unless the form chosen is phonologically and/or orthographically similar to the L1 form, this is not transfer since there is no way to know or predict which form in the set [of translation alternatives] will be chosen” (Köhlmyr 2003: 275). Following her reasoning, errors involving the Norwegian/English pairs *for/for*, *over/over*, and *under/under* would be classified as negative L1 transfer, and those relating to *av/of*, *after/etter* might be due to their phonographic similarity. On the other hand, cases such as those involving *på/on* and *med/with* cited in this section would be attributed to overgeneralization.

Kölmyr is thus unable to uncover any motivation for transfer between two words with forms as dissimilar as Norwegian *på* and English *on*, and surmises that “the choice seems to fall on what could be felt as the most frequent or ‘very English’ preposition in the set” (Köhlmyr 2003: 287 and 319). By contrast, cognitive metaphor theory suggests that there is a clear semantic link between the (predominantly spatial) basic meanings of the preposition pairs. That pairs such as *over/over* are also cognates certainly reinforces the tendency for learners to assume they are complete translation equivalents, but does not

exclude pairs such as *på/on* from being subject to the potential effects of language transfer. Assumed translation equivalence between even such outwardly dissimilar pairs thus becomes predictable, allowing for the generation of correspondence charts such as that presented in Table 22.

Moreover, this discussion is closely connected to Jarvis and Pavlenko's distinction, discussed in section 3.6.1, between linguistic and conceptual transfer where the former involves transfer motivated by for example lexical form or semantic divergence, and the latter involves transfer prompted by different underlying conceptual structures. L1 influence between prepositions such as *på* and *on* is possible if various aspects of the conceptual structure underlying one's understanding of *på* are assumed to apply to *on* as well, something which can result in either positive or negative transfer, i.e. correct or incorrect L2 prepositions. Linguistic and conceptual transfer, however, sometimes seem to either go hand in hand and be difficult to tease apart. With regard to those L1/L2 preposition pairs that bear morphological and/or phonological similarities, it may not prove possible to separate the two.

In addition to these potential obstacles that can be derived in part from the information in Table 22, there are a number of other factors that can play a role in choice of English preposition by L1 writers of Norwegian. For example, English sometimes has no preposition in cases where a foreign language requires one. Norwegian is a language that requires a preposition + infinitive in certain constructions expressing for example purpose, as in *vi gleder oss til å besøke henne* [lit: *we are looking forward to to visit her*, Eng: *we are looking forward to visiting her*]. Another linguistic construction foreign to English is the combination of preposition + the subordinating conjunction *that*, common in Norwegian, as in *jeg var sikker på at alt var i orden* [lit: *I was sure on that all was in order*, Eng: *I was sure that everything was all right*].

Furthermore, it is generally accepted that fixed grammatical collocations involving prepositions can be difficult for Norwegian students of English to acquire. Those English grammars designed for the Norwegian market that include sections on prepositions usually include lists of such bound prepositions, e.g. *look at*, *critical of*, *reliance on*, etc. (see Lysvåg and Johansson 1995: 118). Moreover, that words can jump word classes could well provide a source of confusion for Norwegians if they are unaware of the possibility. Hasselgård et al. illustrate such "jumping" with *round*, which can be employed as an adjective, noun, verb, preposition or adverb, depending on context (Hasselgård et al. 1998: 16-17). Such words distinguish themselves from, for example, homonyms because of the

semantic and etymological links between the various forms. As it relates to English prepositions in particular, a common point of confusion may be that *to* can function as either an infinitive marker or a preposition (see Austad et al. 1999: 106, Hasselgård et al. 1998: 16).

7.7 The total number of prepositions in NICLE and LOCNESS

Table 23 presents an overview of the prepositions found in the approximately 40,000 words of my data. The prepositions are ordered in terms of total frequency, with the most frequent listed first. Prepositions that appear with equal frequency are ordered alphabetically. There are 3801 prepositions in my data, divided more or less equally between the two corpora: NICLE has 1847 and LOCNESS has 1954. These numbers were generated through searching my database for all words tagged by CLAWS as either PRF for the preposition *of*, or PRP for all other prepositions. There is thus a small degree of error resulting from incorrect POS tagging, either where a preposition is not marked as such or where some other part of speech is mistakenly tagged as a preposition. The BNC online manual provides error rate figures of 0.0% for the PRF tag and 0.59% for the PRP tag from a 50,000 word test sample where the results of a manual tagging were compared with the CLAWS.¹¹⁴ Although the percentage of error may be slightly higher for novice writing such as that in NICLE and LOCNESS, the difference is unlikely to be great (discussed in section 5.1.2). The numbers in Table 23 should thus give a reliable impression in terms of the numbers of prepositions in my data. This list may be compared with Kennedy's list of the fourteen most frequent prepositions in the BROWN and LOB corpora. In terms of relative frequency, he writes that "[a]bout one word in every eight in almost every English text is a preposition," a conclusion ostensibly drawn on the basis of his analysis of preposition use in the aforesaid corpora where approximately 12% of all words are prepositions. His "top 14" are, in order of most to least frequent, *of, in, to, for, with, on, at, by, from, into, about, through, over, and between*. These 14 prepositions account for roughly 90% of the overall numbers of prepositions in his data, the single preposition *of* accounting for almost 30% of the preposition tokens alone (Kennedy 1998: 139).

¹¹⁴ Source: *Pos-tagging error rates 2000*.

Table 23: Overview of frequency of prepositions in NICLE and LOCNESS

	NICLE + LOCNESS		NICLE		LOCNESS	
1	of	1033	of	459	of	574
2	in	659	in	333	in	326
3	for	413	for	188	for	225
4	to	299	to	148	to	151
5	with	237	with	126	with	111
6	on	190	on	105	by	99
7	by	178	by	79	on	85
8	from	117	about	78	from	55
9	about	103	from	62	at	54
10	at	88	at	34	as	35
11	like	68	like	33	into	35
12	as	65	as	30	like	35
13	into	59	through	25	about	25
14	through	40	into	24	before	16
15	without	27	without	15	through	15
16	before	24	upon	14	against	13
17	over	22	within	14	over	13
18	upon	18	during	10	without	12
19	after	17	over	9	after	11
20	during	16	before	8	around	7
21	within	16	among	7	despite	6
22	against	13	towards	7	during	6
23	between	11	after	6	between	5
24	among	10	behind	6	under	4
25	towards	10	between	6	upon	4
26	around	9	under	4	among	3
27	behind	9	beyond	3	behind	3
28	despite	9	despite	3	including	3
29	under	8	inside	3	outside	3
30	throughout	5	throughout	3	towards	3
31	beyond	4	around	2	across	2
32	inside	4	across	1	near	2
33	outside	4	near	1	throughout	2
34	across	3	outside	1	within	2
35	including	3	above	0	above	1
36	near	3	against	0	amongst	1
37	above	1	amongst	0	besides	1
38	amongst	1	besides	0	beyond	1
39	besides	1	concerning	0	concerning	1
40	concerning	1	considering	0	considering	1
41	considering	1	including	0	inside	1
42	regarding	1	regarding	0	regarding	1
43	unlike	1	unlike	0	unlike	1
Total		3801		1847		1954

In my NICLE and LOCNESS data, the top 14 prepositions account for a slightly higher 94% of the total, with tokens of *of* calculated at approximately 27% of all prepositions. Moreover, in my data taken as a whole, 9.4% of all words are prepositions. This means that one of every ten or eleven words in these texts is a preposition, the number

closer to one in ten words in LOCNESS (9.8%) and one in eleven words in NICLE (9.0%). These differences might plausibly result from the different degrees of linguistic maturity between the writers of the BROWN/LOB texts and the writers of the NICLE/LOCNESS texts, as the former were primarily professional authors and journalists whereas the latter were novice writers. As such, it stands to reason that the language of the professional writers is generally more sophisticated than that of the learners. Kennedy highlights the importance of the role of prepositions to create “intra-propositional cohesion” (Kennedy 1998: 139) so a greater frequency of prepositions in text may be a sign of the greater cohesiveness which is to be expected in professional writing.¹¹⁵ Furthermore, it also appears that the novice writers employ less variation in that they use a limited number of high-frequency prepositions to a slightly greater degree than do professional writers.

Note also that not a single preposition occurred in the NICLE material only. On the other hand, nine prepositions are evident in my LOCNESS data but not NICLE. The majority of these nine prepositions, however, are rare in LOCNESS, one of them occurring only three times (*including*) and seven only once (*above, amongst, besides, concerning, considering, regarding* and *unlike*). Four of these nine prepositions (*including, concerning, considering, and regarding*) are what Crystal refers to as marginal prepositions. He specifically cautions English learners to be aware of such words, “which can behave like prepositions, though they show features of other word classes, such as verbs and adjectives” (Crystal 2004: 183). The remaining preposition, *against*, is present thirteen times in LOCNESS, making it the sixteenth most frequently-used preposition despite constituting only a small fraction of the total number of prepositions in that corpus. The absence of any instances of *against* might represent a case of underuse by the Norwegians or might simply result from topic choice. Further investigation would be necessary to see which is the case.

7.7.1 The number of metaphorical prepositions in NICLE and LOCNESS

An overview of the metaphorical prepositions in NICLE and LOCNESS is presented in Table 24. An initial point to note concerns the sheer numbers of metaphorical prepositions compared with the total numbers of prepositions seen in Table 23. Here it can be seen that the most common prepositions are more frequently used to denote metaphorical senses than literal ones. This finding agrees with Kennedy’s corpus-based analysis of *at, between,*

¹¹⁵ Biber’s explanation of his multi-dimensional methodology adds some implicit support to Kennedy’s proposition concerning the cohesive effect of prepositions. Biber reports a positive weighting for prepositions in three of his seven factors which, in turn, affect various dimensions of communicative functions. They seem to contribute towards explicit reference and conveyance of speaker attitude and beliefs as well as an impersonal, abstract style that one might associate with formal essays (Conrad and Biber 2001).

through, and *by* which “suggests that it is in extended or metaphorical contexts that a significant proportion of the use of these prepositions occurs” (Kennedy 1998: 143).

Table 24: Overview of metaphorical prepositions in NICLE and LOCNESS, ordered in terms of frequency

	NICLE			LOCNESS		
	Entrenched	Novel	Total	Entrenched	Novel	Total
of	347	13	360	480	5	485
in	262	11	272	264	2	266
for	167	9	176	225	-	225
to	81	15	96	105	3	108
on	82	8	90	71	6	77
with	76	-	76	67	-	67
about	75	2	77	27	-	27
from	49	1	50	32	1	33
by	27	-	27	47	-	47
at	18	5	23	41	1	42
into	15	1	16	23	-	23
through	25	-	25	15	-	15
before	6	-	6	11	-	11
upon	13	-	13	4	-	4
without	15	-	15	1	-	1
within	12	-	12	2	-	2
against	-	-	0	13	-	13
after	4	-	4	7	-	7
over	2	1	3	8	-	8
towards	5	1	6	2	1	3
among	5	1	6	3	-	3
between	3	1	4	4	-	4
under	2	-	2	3	-	3
beyond	2	1	3	1	-	1
throughout	3	-	3	1	-	1
around	1		1	1	1	2
behind	1	-	1	2	-	2
near	-	-	0	2	-	2
above	-	-	0	1	-	1
across	-	-	0	1	-	1
amongst	-	-	0	-	1	1
as	-	-	0	-	1	1
inside	1	-	1	-	-	0
outside	-	-	0	1	-	1
besides	-	-	0	-	-	0
concerning	-	-	0	-	-	0
considering	-	-	0	-	-	0
despite	-	-	0	-	-	0
during	-	-	0	-	-	0
including	-	-	0	-	-	0
like	-	-	0	-	-	0
regarding	-	-	0	-	-	0
unlike	-	-	0	-	-	0
Total	1299	70	1369	1465	22	1487

More often than not, metaphorical prepositions are employed in a conventional manner, in the sense that their contextual senses and collocations are lexicalized in dictionaries. Occasionally, however, a preposition is used in a novel metaphorical fashion. In other words, the particular metaphorical sense with which the preposition appears is unconventional because there is no such sense listed in contemporary dictionaries. Such novel prepositions occur between three and four times more often in NICLE than in LOCNESS, with 70 instances registered in NICLE and 22 in LOCNESS. In terms of overall numbers of metaphorical prepositions compared to the total numbers of prepositions, there is no statistically significant difference between the two corpora, i.e. the proportion of non-metaphorically used prepositions to metaphorically used prepositions is roughly the same ($\chi^2 = 2.10$ (df=1), $p=0.1472$). In terms of novel metaphor, however, slightly more than 5% of the total number of metaphorically used prepositions in NICLE are employed in a novel fashion, as opposed to slightly less than 1.5% in LOCNESS. Statistical calculations show these numbers to be highly significant ($\chi^2 = 30.19$ (df=1), $p=0.0000$). Clearly, the difference between the numbers of novel metaphorical prepositions in the two corpora is not due to chance.

Still, considering the widespread contention concerning the great difficulty which L2 preposition use poses for language learners, this total of only 70 novel metaphorical prepositions in NICLE might seem surprisingly low. Although there are no fully comparable studies to provide a comparison, Kölmyr's (2003) investigation into the grammatical errors in the written English of Swedish students does allow for some comparison because Swedish and Norwegian are mutually comprehensible Scandinavian languages. They share syntactical features to such an extent that, for example, they (along with Danish) are discussed together in a single chapter dealing with common problems in Swan and Smith's (2001) guide to learner English with its focus on potential interference problems. Kölmyr's material consists of 71,000 words of text, written in the form of letters. Here she identifies 619 preposition errors, of which 5 concern polywords such as *because of*. The 619 errors in 71,000 words of text amounts to 0.87% of the total words investigated whereas I have identified 70 errors in 20675 words of text, amounting to 0.34%. This difference is highly significant ($\chi^2 = 60.84$ (df=1), $p=0.0000$).

It should be stressed that the comparison between the two numbers of preposition errors is not ideal, chiefly for two reasons. First, this comparison takes the total number of words rather than the total number of prepositions in each corpus as its baseline. Kölmyr provides no data about the total number of prepositions found in her corpus, information

which would have made the comparison more accurate. Second, K lmyr’s focus is different from that of the present study in that she identifies a wide variety of grammatical errors in the Swedish writing, of which prepositions constitute only one area. She identifies all errors in her material, whereas my figure of 70 includes only those prepositions employed in a novel metaphorical sense. Preposition errors that involve the basic sense are not explicitly identified in my study. An example is given in (93).

(93) But we don’t know if there is some kind of life at other planets, and how that life would be like.
ICLE-NO-AG-0007.1

Here, the preposition *at*, confused for *on*, refers to a physical relationship between two concrete entities and as a consequence is not metaphorical in use. Although my general impression is that there are relatively few such errors, their inclusion would of course have increased the total number of anomalous prepositions, narrowing the gap between K lmyr’s results and mine.

Despite these discrepancies, the comparison of K lmyr’s figures with mine nonetheless provides support for the contention that the number of preposition errors of L2 learners significantly declines as their English becomes more advanced, a logical yet important proposition. K lmyr’s informants consisted of 16-year-old Swedish learners of English who had studied English for an average of six years each, and were characterized as “mixed ability,” whereas the NICLE students were university students specializing in English studies, and mainly in the early 20s. The relatively low number of novel metaphorical prepositions in NICLE provides evidence that their English is truly advanced, unlike the English in some of the other subsets of ICLE. The relative lack of preposition errors may be a sign of advanced English or – put another way – advanced English may be marked by a lack of preposition errors.

7.8 Congruence between L1 and L2

As discussed in section 3.6.3.5, each NICLE sentence containing a novel metaphorical preposition was independently translated to Norwegian by two translators. Comparison of the original NICLE prepositions with their two translations reveals that they fall into one of five categories in terms of their congruence between L1 and L2. The concept of congruence has been borrowed from Nesselhauf’s discussion of factors which correlate with language learners’ difficulties (Nesselhauf 2005: 221-229). To shift the focus towards the role of the L1 (in this case Norwegian) in the production of novel metaphorical prepositions rather than collocations, I have opted to adopt the concept of congruence but operate with slightly

altered definitions from those of Nesselhauf. Examples taken from NICLE of each type of congruence are presented in Table 25 and explained immediately afterwards.

Table 25: Congruence between L1 and L2 with examples

Type of congruence	NICLE example	Norwegian translation	Alternative English preposition
Basic Congruence	...when it's on TV or <u>at</u> the Internet... ICLE-NO-AC-0001.1	på	on
Divergent Congruence	I could not have disagreed more <u>to</u> such a statement. ICLE-NO-HO-0023.1	i	with
Ø Congruence	You can take your work <u>at</u> home...ICLE-NO-AG-0012.2	Ø	Ø
Non-congruence NP	...a student's dream of passing <u>on</u> a final exam...ICLE-NO-AC-0001.1	på	Ø
Non-Congruence EP	Does it deprive us <u>from</u> social contact? ICLE-NO-HO-0029.1	Ø	of

If both Norwegian and English require the same type of syntactic structure in the particular context, then the relationship is deemed *Congruent* and otherwise it is judged *Non-congruent*. For my purposes, congruence is exemplified by those cases where either both languages require a preposition or alternatively, where neither language does. There are three possibilities in this regard. First, if the basic senses of the contextually appropriate prepositions in both Norwegian and English correspond, then the relationship is labeled *Basic Congruence* (BCongr). Second, cases where Norwegian and English require prepositions whose basic senses do not correspond with each other are characterized as *Divergent Congruence* (DCongr). Third, if neither language requires a preposition then the instantiation is labeled as *Ø Congruence* (ØCongr). The alternative constructions suggested by the two translators need not be identical; rather these cases are simply united by the common factor of not requiring a preposition. By contrast, non-congruence involves those cases where one of the two languages requires a preposition while the other does not. Non-congruence may either be the result of Norwegian requiring a preposition while English requires some other construction (abbreviated as *NCNP* for Non-congruent, Norwegian preposition required) or vice versa (*NCEP* for Non-congruent, English preposition required).

For instance, Table 25 shows that the preposition *at* in the fragment *when it's on TV or at the Internet* has been rendered by both translators as Norwegian *på*. As discussed in section 7.5, the English preposition *on* is the perceived primary counterpart of *på* because their basic senses share the same prototypical relationship. Hence, this case instantiates the

Basic Congruent congruence type. In this particular case, the potential positive influence from one-to-one correspondence between the L1 and L2 seems to have been overruled. Had the writer adhered to the basic translation equivalent by writing *on* rather than *at*, there would have been no anomaly.¹¹⁶

My data shows that far more constructions are congruent in the two languages, with 58 congruent cases and 13 non-congruent cases. There are 15 cases that fall into the category of Basic Congruence and 38 instances of Divergent Congruence, showing that of the congruent cases, prepositions are generally required in both Norwegian and English. There are only 5 cases of Ø Congruence, where neither language requires a preposition. The non-congruent instances are split between the two types with 10 cases of the NCNP type and 3 cases of NCEP category. These figures are summarized in Table 26.

Table 26: Distribution of NICLE novel metaphorical prepositions according to congruence type

Congruence type		Total
Congruent		58
	Basic congruence	15
	Divergent congruence	38
	Ø congruence	5
Non-congruent		13
	NP	10
	EP	3
Split decision		10

As indicated in Table 26, there are also 10 split decisions, where judgement about congruence is divided as a result of different translation strategies. By way of example, (94), followed by its two translations, presents a NICLE sentence where the contextually required preposition *about* is absent. This is indicated by the Ø symbol which I have inserted.

(94) You always have a choice Ø how to handle a situation! ICLE-NO-AC-0021.1

Translation 1: Du har alltid et valg om hvordan du kan takle en situasjon!

Translation 2: Du har alltid et valg med hensyn til hvordan du skal takle en situasjon.

Translation 1, where the preposition *om* is used, adheres to a Basic Congruent strategy. By contrast, Translation 2 employs the polyword *med hensyn til* [translation: *with regard to*], thereby exemplifying the non-congruent strategy of NCEP.

In two of these cases, both translators choose a congruent construction, but their particular choice of preposition results in different congruence subtypes. As an example, consider the choice of *for* in (95), which is followed by the two translations.

(95) Because we are in reach for everyone all the time, and we communicate a lot more than people were able to do a hundred years ago. ICLE-NO-BU-0003.1

¹¹⁶ This instantiation is quoted in full as (97) and further discussed on page 240.

Translation 1: Fordi vi er tilgjengelige for alle hele tiden, og vi kommuniserer mye mer enn mennesker kunne gjøre for hundre år siden.

Translation 2: Fordi vi alltid er innenfor rekkevidde av hverandre, og vi kommuniserer mye mer enn folk var i stand til for hundre år siden.

Translation 1 employs the Norwegian preposition *for*, corresponding to the Divergent congruence type, whereas translation 2 employs *av*. The latter translation thus adheres to the Basic Congruent type, as the basic meaning of *av* corresponds with English *of*, which is more contextually felicitous.¹¹⁷ Contrasting choice of prepositions results from contextually-required grammatical colligation in the two translations, resulting from the different means of rendering the phrase *in reach*; translator 1 chooses the adjective *tilgjengelige* [translation: *available*], whereas translator 2 prefers *innenfor rekkevidde* [translation: *within reach/range*].

Translation is intended as an alternative to pure intuition to provide a measure of crosslinguistic performance congruity, thereby offering indications of possible L1 transfer. Jarvis and Pavlenko maintain that “[u]sing external descriptions of the source language...is fine...as long as they provide an accurate characterization of how the L2 users would have performed on a given task if they had been asked to complete the task in the source language, and not just in the recipient language” (Jarvis and Pavlenko 2008: 49). When the congruence patterns in the two translations agree, this is taken as a valid indication of the possible performance of the NICLE writers had they been writing in their L1. In the ten cases in which the translations differ by instantiating different congruence patterns, however, no clear possibility has been ascertained. As a consequence, these 10 ambiguous cases are disregarded in the overall discussion of prepositions and congruence.¹¹⁸

Note, however, that only split decisions resulting in discrepancies of congruence types (e.g. (94)) or subtypes (e.g. (95)) have been disregarded. All cases where both translations adhere to the identical congruence pattern have been retained for further consideration, even in those (few) cases where the actual translation tokens differ. Sentence (96) offers an example intended to clarify this point.

(96) People have always been suspicious about it. ICLE-NO-AC-0001.1

Translation 1: Folk har alltid vært skeptiske til det.

Translation 2: Folk har alltid vært mistenksomme for det.

¹¹⁷ WebCorp and Google searches provide evidence for the use both *of* and *for* in collocation with *in reach*, but *of* is more frequently employed.

¹¹⁸ Note also that in 10 of the remaining 81 pairs of translation, one of the two translators chose to offer two translation alternatives, one of which was marked in parentheses or with a question mark to indicate hesitation. In such cases, the doubtful translation choice was disregarded in the determination of congruence type.

Here, the preposition *of* has been mistaken for *about*, and then rendered by the two translators as either *til* or *for*. As in case (95), the choice of Norwegian preposition is triggered by the colligation required by the two translators' choices of adjectives offered as correspondents for *suspicious*. Translator 1 chooses *skeptiske* [translation: *skeptical*] while Translator 2 selects *mistenksomme* [translation: *suspicious*], each of which requires different colligating prepositions. Despite this variation, the example in (94) differs from that of (95) in that such decisions have no consequence for congruence patterns between the English and Norwegian preposition(s). Both languages require a preposition (hence they are congruent), and both translations provide evidence for a Divergent Congruent relationship (hence the same subtype); even though there may be discussion as to the most appropriate Norwegian preposition, there would seem to be no doubt that a preposition is required, and that said preposition is not *av*, the basic correspondent to the contextually appropriate English preposition in this instance. Hence, this case is retained as an example of congruence, and more specifically as Divergent Congruent.¹¹⁹

To sum up, there are 58 congruent cases, 13 non-congruent cases, and 10 cases where the translators diverged. This adds up to a total of 81 cases. There are, however, only 70 observed instantiations of novel metaphorically used prepositions in NICLE (see Table 24). The discrepancy between the two numbers is explained by the 11 cases where the Ø preposition was “chosen,” meaning that the preposition is lacking and no substitute is offered. These cases involving the Ø preposition are thus incorporated into the figures of congruence types presented in Table 26, and included in the discussion which follows.

7.8.1 Basic Congruence (BCongr)

With the Basic Congruence type, the basic senses of the presumed Norwegian source preposition and the appropriate English preposition correspond. Because there is a lack of contrast between the L1 and L2, predictions based on Contrastive Analysis would indicate that the Norwegian learner should consequently have no difficulty in this area. Despite this correspondence, however, a third preposition has nevertheless been selected in the NICLE texts. Lowie and Verspoor, who also encounter similar cases in their study of the acquisition of English prepositions by Dutch learners, say that such a “striking finding...seems to point to the learners' reluctance to use formally similar words for the translation of metaphorically

¹¹⁹ Note that the collocation *suspicious about* is appropriate for situations where one has a feeling that someone has done something wrong, but lacks concrete evidence (e.g. *suspicious about a plane crash*). This collocation is not appropriate in the context of (96) about skepticism. This difference is not remarked upon in either MED or LM, but it is made explicit in other learners' dictionaries (e.g. *Cambridge advanced learner's dictionary* 2008, *Oxford Advanced Learner's Dictionary, 7th edition* 2007).

used lexical items” (Lowie and Verspoor 2001: 83). Nesselhauf too writes of the “strikingly low degree of L1 influence in the prepositions of prepositional phrases (Nesselhauf 2005: 187). The use of the word “striking” to describe their findings indicates that the phenomenon in question stood out by running counter to the expectations of these researchers. It is thus worth further exploration.

I propose three explanations to account for the occurrences of mistakes despite a relationship of basic congruence. The first possibility is *homoiophobia*, a term coined by Kellerman to refer to learners’ caution in automatically transferring L1 structures to the L2. He attributes such reluctance to constraints caused by a distinction between the prototype and periphery (Kellerman cited in Bot et al. 2005: 130). In very broad terms, the core of a language can be considered to be unmarked while the periphery is marked, and a learner’s L2 is affected not just by ironclad facts about the language in question, but also by perceptions. Simensen, for example, explains that the periphery involves those elements in a learner’s L1 which the learner feels to be marked due to their perceived infrequency, irregularity, and/or opacity (Simensen 1998: 93). Such L1 elements are in turn felt by the learner to be less transferable to an L2, constraints created through a conscious awareness of the unusual nature of the particular linguistic phenomenon in the learner’s L1. Due to the focus on metaphor in the present study, the instantiations of Basic Congruence listed in Table 26 involve a metaphorical extension of the basic sense of the various prepositions involved. Should the learners perceive such figurative extensions to constitute peripheral uses in Norwegian, they might prove reluctant to employ the corresponding English basic prepositions in their NICLE texts.

A second possible explanation for the Basic Congruence type is that language learners have acquired the belief that prepositions in an L2 pose difficulties and simply assume that there must be a difference. While the first explanation relies on the perception of particular uses as peripheral, this explanation depends merely on the learners’ awareness of the L2 as being a language other than their L1. Choosing a preposition which is unrelated to the Norwegian alternative makes the English text appear just that: more English, or at least less Norwegian. This explanation is linked to the learner’s perception of the languages involved and the loss of their “L2 innocence” through the realization that the L2 is not merely the L1 with different vocabulary. As Kean explains, “The minute there is a commitment to any interlanguage grammar the learner gives up the option of arbitrary transfer from a native language” (Kean 1986: 89). That is, at some point, perhaps at a fairly early stage of L2 acquisition, the learner realizes that one-to-one direct correspondence

between L1 items and the L2 is not a viable option. The potential of positive L1 influence which could contribute to learners' choosing a conventionally appropriate preposition can therefore be overturned as the learners' awareness of differences between the two languages grows. This is the explanation to which Nesselhauf seems inclined, attributing "the non-occurrence of positive L1 influence...to perceived general differences" between the L1 and L2 (Nesselhauf 2005: 187). In short, sometimes differences are simply assumed where none in fact exist. This is in a sense akin to Kölmeyer's hypothesis that the choice of preposition falls on the one perceived as the most "English." She maintains further, however, that it is impossible to predict which prepositions from the set of alternatives might be chosen. If this is so, then one should see a random scattering of prepositions in the data of preposition errors – otherwise prediction becomes possible.

A third explanation concerns the possibility of transfer from a language other than the L1 (Norwegian). Assuming that English is indeed the L2 for the NICLE students, a reasonable assumption since English has traditionally been the primary foreign language taught in Norwegian schools, influence from this L3 (or in the case of some NICLE students, L4) would constitute a form of reverse transfer. This would contrast with the forward transfer from the L1 to the L2. Jarvis and Pavlenko, however, prefer the term *lateral transfer*, by which the acquisitional order of languages loses its central role and the focus switches to the fact that one interlanguage may interfere with another (Jarvis and Pavlenko 2008: 21-22). The ICLE learner profiles reveal that 8 of the 29 Norwegian students whose texts were examined for metaphor have no languages other than Norwegian and English. Of the remaining students, 6 list German, 5 list French, 7 list both French and German, and 1 lists French and Spanish. The 2 remaining students report that although they have no L2s other than English, they do have a second language in the home in addition to Norwegian (specified only as "Other"), something which opens the possibility of lateral transfer between two L1s. In contrast to forward transfer, there are relatively few studies on lateral transfer (Jarvis and Pavlenko 2008: 233). Further exploration of this area is also beyond the scope of the present study and would, moreover, be impossible using NICLE. The NICLE students' degree of competency in their L3s and L4s is unknown, the added L1s of the two students are unnamed, and the students are no longer available for further data collection. In any case, their language competence will have changed in the decade since the corpus creation. Furthermore, investigation of lateral transfer would involve determination of the equivalents of the NICLE novel metaphorical prepositions in an array of other languages. With respect to the LOCNESS texts, there are not even any learner profiles

available so there is no possibility of evaluating possible influence from an L2, even though reverse transfer could also play a role in the English of the LOCNESS students.

An overview of the 15 NICLE instantiations of Basic Congruence is presented in Table 27.

Table 27: NICLE Instantiations of Basic Congruence

	Norwegian source preposition	Suggested English preposition	NICLE English preposition	Immediate context	ICLE-NO-
1	av	of	for	...we have to make use <u>for</u> them...	HO-0029.1
2	av	of	to	and as a result <u>to</u> that the world changes again.	HB-0002.1
3	for	for	of	...has completely taken over our needs <u>of</u> mental escape.	AC-0013.1
4	for	for	to	<u>To</u> a lot of shy people, the Internet has become a positive element...	HO-0029.1
5	for	for	to	The pupil has given reasons <u>to</u> why he or she has...	AG-0019.1
6	for	for	in	...a new step <u>in</u> manhood...	AC-0001.1
7	i	in	Ø	More often the children joined <u>Ø</u> the work...	AG-0007.1
8	i	in	Ø	Education plays a different role today than <u>Ø</u> the old times.	AG-0007.1
9	i	in	Ø	...we should be happy for living <u>Ø</u> our own country...	AC-0001.1
10	med	with	to	In connection <u>to</u> this development...	BE-0002.1
11	mot	towards	for	...people today automatically seek <u>for</u> electronic.	AG-0012.1
12	om	about	of	They maybe dreamt so much <u>of</u> it that...	AG-0007.1
13	på	on	at	when it's on TV or <u>at</u> the Internet it have to be true.	AC-0001.1
14	på	on	at	a society which so strongly focuses <u>at</u> possession of objects.	BE-0002.1
15	til	to	of	Let me start by making you a brief introduction <u>of</u> what I will explore further	AC-0021.1

Despite the occurrence of 34 different English prepositions in the NICLE texts (see

Table 23), only eight correspondent pairs are represented in the Basic Congruence type: 1 case each of *med/with*, *om/about* and *mot/towards*, 2 cases of *av/of*, *på/on* and *til/to*, and 3 cases each of *i/in* and *for/for*. Seven of these eight English prepositions (the exception being *towards*) also top the list of those prepositions appearing most frequently in a metaphorical sense in NICLE, as presented in Table 24. Here we see, for example, that the two cases involving the *på/on* pair (numbers 13 and 14) are rendered in NICLE by the preposition *at*, indicating some confusion concerning the relationship between these three prepositions. Consider the underlined preposition in (97), for instance.

(97) Because, when it's on TV or at the Internet it have to be true. ICLE-NO-AC-0001.1

Although the sense of *på/on* appropriate in (97) is a metaphorical extension, one would be hard-pressed to consider such a sense peripheral in either Norwegian or English, as it simply involves relatively straightforward mapping from physical to metaphorical location or contact. The same is true for the remaining *på/on* basic congruent example, so homophobia is an unlikely cause of these preposition choices. Instead, the second possibility – hyper-awareness that English is not Norwegian – may have prompted the inappropriate choice of *at* to avoid possible overgeneralization through an automatic choice of *on*. After all, the choice is not a completely improbability, as *at* frequently corresponds to Norwegian *på*.

In addition, a number of the Basic Congruence cases involve two of the vaguest prepositions in terms of their English basic meanings, *of* and *for* (numbers 1-6, together with 11, 12 and 15). Lindstromberg maintains that they are the two most difficult prepositions to define, neither of them having a clear spatial basic meaning which can be depicted (Lindstromberg 1998: 221). The Norwegian prepositions *av* and *for* are perhaps equally vague, something indicated by Faarlund et al.'s characterization of the meanings of these prepositions. They describe Norwegian *for* as being one of the most usual in a long list of spatial prepositions, although they offer no illustrative example in this case. In addition to this one concrete sense in the spatial domain, they explain that *for* can convey manner (e.g. *Radioen stod og durte for full musikk* [translation: *The radio was on at full blast*]), benefit (e.g. *Eg skal skrive søknaden for deg* [translation: *I will write the application for you*]), and purpose, the latter meaning often in conjunction with an infinitive construction (e.g. *Han gjekk ut for å hogge ved* [translation: *He went out (for) to chop wood*]). They attribute only two senses to *av*, namely the origin sense (e.g. *Denne romanen er av Solstad* [translation: *This novel is by Solstad*]) and the partitive (e.g. *kanten av stupen* [translation: *the edge of the*

cliff).¹²⁰ It is the partitive sense of *av* that corresponds most closely to the basic sense of the English preposition *of*. Because Faarlund et al. are careful to emphasize that their categories are intended to only present the central uses rather than offer a complete overview of all the meanings prepositions can express (Faarlund et al. 1997: 435), one must assume that these named senses constitute the primary meanings for the two Norwegian prepositions.

Turning then to the contextual senses of numbers 1-6 in Table 27, we see that only number 6, reproduced in full as (98), corresponds to one of the senses in Faarlund et al.'s list.

(98) I believe that the world is still full of dreams just waiting to be exposed to the public as a positive achievement, maybe a new step in manhood, just like the first step on the moon or the first transportation of food and clothes to needy people in a war-area. ICLE-NO-AC-0001.1

Specifically, this particular use exemplifies to the “benefit” sense of the preposition *for* (i.e. a new step for the benefit of manhood [mankind]), corresponding to Faarlund et al.'s illustration of “writing an application for [the benefit of] you.” The contextual senses expressed by the prepositions in the 5 remaining NICLE cases involving the *for/for* and *av/of* pairs involve more peripheral senses Faarlund et al. do not mention. For instance, number 4, *To a lot of shy people, the Internet has become a positive element...* (ICLE-NO-HO-0029.1), involves the sense of MED8: “relating to or concerning someone or something,” where the complement of the preposition could be likened to an abstract destination. Indeed, even the case in (98) does not correspond exactly to the Norwegian example; in the former, a metaphorical (abstract) step benefits someone whereas in the latter, the concrete action of writing (or alternatively, the concrete object of the application) benefits someone. Thus, although the distinction between the core and periphery could not explain the Basic Congruent cases involving the *på/on* pair, it may play a role when it comes the less central meanings of less depictable prepositions.

One last example of Basic Congruence involving *of*, number 12 in Table 27, is interesting because it brings out a somewhat subtle distinction in English. In this particular case, presented in full as (99), the pair involved in a basic convergent relationship is *om* and *about*, and the NICLE writer has employed the preposition *of*.

(99) They maybe dreamt so much of it that they'd walk around with weapons. ICLE-NO-AG-0009.1

¹²⁰ All Norwegian examples are quotes from Faarlund et al.'s discussion of the meaning of prepositions (Faarlund et al. 1997: 417-449). It should also be noted that Faarlund et al. classify the partitive sense of *av* as an abstract sense even when it refers 1) to concrete entities and 2) senses related to time as concrete. I disagree with these evaluations.

Lindstromberg discusses the difference between *of* and *about* in examples that closely parallel the circumstances in (99). He explains that metaphorical *of* connotes directness and completeness and therefore more intensity in a sentence like *I dreamed of you*. Metaphorical *about*, by contrast, connotes “near but not at” such that the focus of the dreaming is more diffuse than the star role which the focus of *of* plays (Lindstromberg 1998: 202). The co-text of (99) shows that the writer is cognizant of both the *dream of* and the *dream about* colligations. Here, one finds the colligation involving *dream about* three times and that of *dream of* three times in addition to the instance in (99):

And then we **dream about** ourselves. Young people, especially boys, dream that they are playing at Manchester United. They actually **dream** so much **about** it that they walk around with United T-shirts. And the girls, they **dream of**...well, what do I know about girls? The adults **dream of** a better car, promotion at their work, and maybe they also have a dream of being a member of United. So - after all, maybe these are what they were **dreaming about** in the past too, only with different subjects. Young people, especially boys, maybe dreamt that they were fighting in a war battle. And who knows? **They maybe dreamt so much of it that they'd walk around with weapons.** And the girls...well I don't know that much about them. The grown ups were maybe **dreaming of** a better horse or whatever they were needed at that time. ICLE-NO-AG-0009.1

As seen here, the preposition *of* requires more concrete images for its more specific focus. “A better car” and “a better horse” are easily imagined, as is a “promotion” whose depictability can be reduced to a simple one-off image (e.g. a letter of promotion, a handshake from the boss, etc.). By contrast, the “it” in (99) refers anaphorically to “fighting in a war battle,” an event which is arguably less easily depicted in a single image and thus more appropriate to the diffuseness linked to the metaphorical sense of *about*. The same can be said about the “it” referring to “playing at Manchester United” at an earlier point in the text, where the NICLE writer has indeed employed *about*. The difference is a subtle one, compounded by the fact that both diffuse and focused senses are subsumed in Norwegian into the single preposition *om*.

7.8.2 Divergent Congruence (DCongr)

There are 38 examples of Divergent Congruence in my material in which prepositions whose basic senses do not correspond are appropriate in both the probable Norwegian source and a corrected English version. These 38 instances can, in turn, be divided into three separate categories of L1 transfer, preposition triads, and the infinitive. The numbers of observed instances are shown in Table 28, and the three categories are briefly explained immediately afterwards and discussed in detail in the following subsections.

Table 28: NICLE observed numbers of Divergent Congruence, divided according to subcategory

Divergent congruence	Total	38
	L1 transfer	20
	Preposition triads	13
	Infinitive	5

Twenty are possible cases of negative L1 transfer where the basic meanings of the English preposition in NICLE and the apparent Norwegian source preposition correspond, but a second English preposition would have been more contextually appropriate. An example is presented in (100).

(100) You can learn a lot of watching TV and videos, e.g. language. ICLE-NO-AG-0012.1

Here an appropriate choice of preposition is *by* (or *from*) rather than *of*. Translations indicate that Norwegian prefers the preposition *av* in this context, whose English basic correspondent is *of*. Hence, the construction is an instance of Divergent Congruence because both languages require prepositions whose basic senses do not correspond (*by* and *av*). At the same time, the English preposition that does correspond with Norwegian *av* is the one employed in NICLE. This then indicates the possibility of negative L1 transfer.

Thirteen of the cases involve three separate prepositions forming a “preposition triad,” meaning that not only do the basic meanings of the Norwegian and contextually appropriate English prepositions not correspond, but the NICLE writer has chosen yet a third preposition. Table 25 featured one such case to illustrate the Divergent Congruence type, a sentence repeated here as (101) for the sake of convenience.

(101) I could not have disagreed more to such a statement. ICLE-NO-HO-0023.1

In this case, the NICLE writer has chosen the preposition *to*, but the more appropriate English preposition is *with* which, in turn, corresponds in this context to Norwegian *i*. Congruence between the two languages for this construction is therefore divergent, in that English and Norwegian require prepositions whose basic senses do not correspond (*with* and *i*), but here a third preposition (*to*) has been employed – hence, a preposition triad.

Five of the Divergent Congruence examples concern cases where Norwegian calls for a combination of preposition and infinitive, a construction not used in English and that might therefore lead to difficulties for language learners (discussed in section 7.5). An example is (102).

(102) One of the good things of being a human being is that... ICLE-HO-AG-0023.1

In this context, the preposition + infinitive combination would be called for in Norwegian, although there are two possible choices of appropriate preposition, either *med å være* [lit: *with to be*] or *ved å være* [lit: *at to be*]. In the NICLE sentence, the writer has correctly

chosen the preposition + gerund combination, but settled for the preposition *of* rather than the more appropriate *about*. This third type is thus referred to here as the infinitive category of Divergent Congruence.

7.8.2.1 L1 transfer

The cases which could be attributed to L1 transfer involve confusion between the basic meanings of six pairs of prepositions: there are two instances involving the *av/of* pair, four of *till/to*, five *på/on* pair, and seven of *i/in*, in addition to single instances of *for/for* and *mellom/between*. Table 23 shows that, with the exception of *between*, these English prepositions are among the six most frequent prepositions in NICLE and LOCNESS overall, while Table 24 shows that these same prepositions also rank as the five most frequent metaphorically used prepositions in my data. An overview of these 20 instances with their immediate context is presented below in Table 29. Of these cases, the second one involving the *av/of* pair in *Stop the world! I want to get of it!* (ICLE-NO-BU-0003.1) could result from a substance level error, where an “f” has simply been omitted. A similar example is found in the LOCNESS material (see section 7.9). Moreover, the eleventh instance, involving the *mellom/between* pair has been classified as novel due to dictionary entries which unambiguously specify that this preposition is employed metaphorically to indicate a relationship between two entities, an extension of the basic meaning relating to the distance between two points. In instances involving several entities such as is the case here, the preposition *among* is appropriate. In practice, however, this rule seems to have fallen by the wayside. Comparative Google searches for “choosing between channels” and “choosing among channels” generated 15,200 hits and 95 hits respectively, with no matches found for the phrase “choosing amongst channels.” A similar blurring between *mellom* and *blant*, the prototypical Norwegian correspondents to *between* and *among* respectively, appears to have taken place in Norwegian as well. Thus, for all intents and purposes, this use represents a conventionalized sense not yet codified in standard ESL dictionaries.

Table 29: Instances of Divergent Congruence (L1 transfer)

	Norwegian source preposition	Suggested English preposition	NICLE English preposition	Immediate context	ICLE-NO-
1	av	by/from	of	You can learn a lot of watching TV	AG-0012.1
2	av	off	of	Stop the world; I want to get <u>of</u> it!	BU-0003.1
3	for	to	for	new discoveries have also opened our vision <u>for</u> new possibilities	BE-0010.1

4	i	for	in	You are working <u>in</u> a software company.	AC-0021.1
5	i	with	in	I do not quite agree <u>in</u> this assertion...	AG-0012.1
6	i	with	in	I do agree <u>in</u> that statement,...	AG-0012.1
7	i	at	in	<u>In</u> the moment you open that book	BE-0009.1
8	i	on	in	I can not figure out how on earth an imaginative story can sell <u>in</u> such a large scale.	BE-0015.1
9	i	of	in	it is one of the basics <u>in</u> human nature	HB-0002.1
10	i	at	in	Everything happened <u>in</u> and enormous fast speed.	BE-0009.1
11	mellom	among	between	there are so many channels to choose <u>between</u> .	AC-0001.1
12	på	in	on	Trevor chooses to do the things he likes <u>on</u> his spare time.	AC-0021.1
13	på	to	on	...a lot of the things that our ancestors were struggling to find an answer <u>on</u>	HB-0002.1
14	på	at	on	when he had been <u>on</u> the university to carry out some research	BU-0003.1
15	på	to	on	we have the possibility to put word <u>on</u> what we desire	HO-0023.1
16	på	for	on	There are plenty of examples seen everyday in our modern world <u>on</u> how visions and fantasy still flourish among humanity.	BE-0019.1
17	til	into	to	...who had a dream of making the computer <u>to</u> something more than just a typing machine.	AC-0001.1
18	til	for	to	Seeing, feeling and experiencing things can be a seed <u>to</u> imagination	AG-0007.1
19	til	for	to	...we have to make use for them <u>to</u> our own benefit.	HO-0029.1
20	til	for	to	Some major reasons <u>to</u> this are	BE-0002.1

Beyond this, I have chosen to concentrate the remainder of this section on only one preposition pair as an alternative to offering lengthy accounts for each potential instance of transfer. The natural choice fell upon *på/on*, known to be especially problematic for the

Norwegian L2 learner of English¹²¹ and one of the pairs responsible for the greatest number of cases of the Divergent Congruence type in my data. As a consequence, the remaining portion of the present section presents attempts to account for the five observed cases of Divergent Congruence instantiations involving the basic correspondent preposition pair of Norwegian *på* and English *on*.

One case involves the domain of time where NICLE writer should have employed *in*, presented in (103).

(103) Trevor chooses to do the things he likes on his spare time. ICLE-NO-AC-0021.1

In English, this context calls for the preposition *in*, which Lindstromberg claims is employed when the period of time is viewed as long enough to create a frame which figuratively encloses an activity (Lindstromberg 1998: 75-76). Such a frame can involve a relatively short stretch of time (e.g. *in the evening*) or longer “sweeps of time” involving weeks, months and/or years (e.g. *in 1980*). The Norwegian basic correspondent to *in* is the preposition *i*. Faarlund et. al explain that *i* is also used in expressions relating to time, with one of its primary uses best corresponding to Lindstromberg’s so-called sweeps of time, i.e. *i* is used in reference to weeks, months, years, epochs, as well as holidays (e.g. *i 1980*, *i ferien*, *i jula* [lit: *in 1980*, *in vacation*, *in Christmas*]). Unlike the English preposition *in*, the Norwegian preposition *i* is not typically employed for the shorter periods of time that Lindstromberg characterizes as “intermediate cases,” being shorter than long durations yet longer than individual points of time (which require *at* as in *at 6 pm*). Here English and Norwegian seem to metaphorically divide time in slightly different ways, resulting in a lack of correspondence between *i* and *in* in contexts such as that in (103), explaining why a Norwegian learner of English might not choose *in* in this context involving an intermediate time frame.

Note, however, that the perceived dividing line between intermediate and long durations of time is fuzzy. The collocation *i fritiden (fritida)* [lit: *in free time the*] does occur, as one of the two translators notes in parentheses. Google searches indicate, however, that it is far less common than *på fritiden (fritida)* [lit: *on free time the*]. In Norwegian, therefore, this context typically calls for the preposition *på*, the basic equivalent of English *on*. Transfer in (103) may thus have been facilitated by overlap in the metaphorical senses, as both prepositions can be used to refer to time. Lindstromberg explains that *on* can also be used in conjunction with intermediate spans of time, but its effect “is to make the Landmark

¹²¹ This point is discussed in section 7.5.

seem more compact,” as illustrated by *It was beautiful on the evening that she came* where the time frame is limited by the following restrictive clause or viewed as if from a distance rather than a sweep of time (e.g. *on Monday, on the morning of the Sabbath*). By contrast, he says, *in* emphasizes the notion of an open-ended stretch of time such as that indicated in (103). Some of these subtle distinctions between *on* and *in* seem to be conflated into the meaning of the single Norwegian preposition *på*. Faarlund et al. (1997: 430) write that *på* refers both to days (e.g. *på mandag/on Monday*) as well as longer periods of time (e.g. *på 1200-tallet* [translation: *in the 1200s*]).

Two instances involving the *på/on* pair both deals with metaphorical space, where the preposition *to* would have been more appropriate. These are presented in (104) and (105).

(104) Today we have figured out a lot of the things that our ancestors were struggling to find an answer on... (ICLE-NO-HB-0002.1)

(105) One of the good things of being a human being is that we have the possibility to put word on what we desire, what we wish for, and what we are dreaming about. ICLE-HO-0023.1

This situation is prototypical for metaphorical *to* in English, where the “things” that have been understood in (104) are the figurative end-point of a search and the metaphorical location where words are metaphorically “put” in (105) are desires, wishes and dreams. With *på*, the mental image changes from a journey with an end-point to that of a foundation upon which answers/words are placed. Such a meaning involving a foundation seems to weigh especially heavily as the deciding factor in the choice of preposition in Norwegian, whereas the sense of destination which is intrinsic to the meaning of *to* is decisive in English.

The preferred use of *to* in (104) can be contrasted with the instance of the *till/to* Divergent Congruence type presented in (106), where the preposition *to* is anomalous.

(106) Some major reasons to this are the development of science technology and the industrialisation which have found place with swift speed during the last decades in our ICLE-NO-BE-0002.1

In (104), the *answers* are specifically intended to explain *a lot of things...*, a situation which can be mentally represented as a metaphorical journey with a clearly intended destination. The trajector (*reasons*) in (106), however, is merely linked to the landmark (*this*), with no sense of metaphorical movement or destination. Lindstromberg calls this a form of “ear-marking,” which he maintains is the core function of metaphorical *for*. Here the trajector is allocated to the landmark, rather than the landmark being any sort of destination per se (Lindstromberg 1998: 221-222). An essential sense of metaphorical *to* in these cases is thus

the sense of movement combined with the focus on end-point or destination, which explains why the preposition *to* is appropriate in (104) but not (106).

Yet another instance revolving around the sense of “concerning” is found in the sentence involving the *på/on* pairing presented in (107), a context in which the foundation sense of *på* again dominates in Norwegian and consequently influences the learner’s choice of *on*.

(107) There are plenty of examples seen everyday in our modern world on how visions and fantasy still flourish among humanity. ICLE-NO-BE-0019.1

Here, the mental image of “how visions and fantasy still flourish...” could be conceived of as a broad plane upon which examples are set. A more appropriate English preposition for this context is *of*, whose contextual sense would thus correspond to MED5: “concerning or showing someone or something.” This is a metaphorical extension from its basic partitive meaning of MED6: “used for stating the thing that something is part of” (relating to concrete entities). The semantics of *of*, however, are “unusually complex” (Lindstromberg 1998: 195). The prepositions *of* and *off* are historically related, *off* once being an emphatic version of *of*. The meanings of the two prepositions have since diverged, with *off* retaining the more concrete sense, and *of* the more abstract and diffuse meaning (Lindstromberg 1998: 195). Apparently by virtue of this etymological link, Dirven is able to claim that metaphorical *of* is an extension of literal *off*, something which proves pivotal to explaining why *on* is anomalous in a context such as (107), despite sharing a basic sense of foundation with its Norwegian counterpart *på*. Dirven maintains that just as spatial *on* and *off* are antonyms, so too are metaphorical *on* and *of*. The preposition *on* “presupposes longer and more profound contact with, preferably, a mental area” (Dirven 1993: 88) whereas *of* tends to be reserved for activities that require less concentration. Mere “examples” are perhaps not consequential enough to warrant collocation with *on* in English.

The appropriate English preposition for the final pair involving divergent congruence and the *på/on* pair, presented in (108), is *at*.

(108) A social anthropologist called Thomas Hylland-Eriksen was talking about his experiences when he had been on the university to carry out some research. ICLE-NO-BU-0003.1

The Norwegian correspondent to the phrase *on the university* is *på universitetet*, which in Norwegian denotes one of two scenarios. It may mean that the anthropologist was physically present on the campus when the research was carried out, i.e. a literal and concrete sense. On the other hand, *på* may also denote the metonymy that Hylland-Eriksen was involved in university activities in the capacity of a student or member of staff, for

instance. The appropriate English preposition conveying these two possible contextual senses is *at*, although here the presence or absence of the definite article is crucial to establish meaning. *At the university* would denote the anthropologist's physical presence on property owned by the university. *At university* would denote his being involved in university-related activities, no matter his physical location.

Norwegian learners of English are typically told that *at* is the closest translation equivalent for the Norwegian preposition *ved* (see section 7.5). While this might be the case, this turns out to be misleading because the converse is not true; *ved* is not the most frequent correspondent of *at*. The basic meaning of *at* is MED1a,b,c “used for stating where someone or something is, in a particular place, where you stop on a journey, sitting or standing close to something” which Lindstromberg summarizes as an orientation point in space. He holds that because it is vague about both the relation between trajector and landmark as well as their relative sizes, it cannot be depicted and it presents difficulties for language learners. Such problems are compounded for Norwegian L1 writers, as the spatial meaning intrinsic to *at* is expressed by a wide variety of prepositions, as well as by means of adding the suffix *-e* to certain words that have a spatial meaning. An example is *hjemme* which means *at home*, and can be contrasted with *hjem*, meaning [*to*] *home*. Faarlund et al. characterize instantiations of this type of construction as intransitive prepositions (Faarlund et al. 1997: 414). The preposition *ved*, despite its pairing with *at* in lists prepared for Norwegian students such as the one reproduced in Table 22, actually conveys a sense of physical nearness (Faarlund et al. 1997: 422) which corresponds more closely to *in the proximity of* than to the basic sense of *at*. Put another way, the preposition *at* presents difficulties for Norwegian learners of English because there is no Norwegian preposition approximating its meaning closely enough to be perceived as a natural equivalent. Hence, L1 transfer – in this case, writing *on* in a context that calls for *på* in Norwegian – offers a natural fallback strategy.

In any case, had the NICLE writer employed *at*, this use would have been deemed not metaphorical. As the sentence stands, however, unless Hylland-Eriksen was physically present on top of the university buildings, this usage constitutes a novel metaphor. Like most novel metaphors, its meaning can be interpreted in a myriad of ways.

7.8.2.2 Preposition triad

The term “preposition triad” is used here to refer to cases involving three prepositions. As shown in Table 30, the apparent Norwegian source preposition, the preposition written in

the NICLE texts, and the suggested English preposition are all different in such cases. Examination of the collected overview of the constellations involved in the 13 cases in my data reveals no one overall pattern that could explain each and every instance, although metaphor provides a means of approaching them in the attempt to answer two related questions. First, why did the writers choose the preposition they did? And second, why did they not choose the conventionally accepted preposition?

Table 30: Instances of Divergent Congruence (preposition triads)

	Norwegian source preposition	Suggested English preposition	NICLE English preposition	Immediate context	ICLE-NO-
1	etter	of	for	in search <u>for</u> themselves	BE-0019.1
2	i	with	to	I cannot agree <u>to</u> that. ¹²²	AC-0014.1
3	i	with	to	I could not have disagreed more <u>to</u> such a statement.	HO-0023.1
4	på	for	at	they are playing <u>at</u> Manchester United.	AG-0007.1
5	på	in	at	than <u>at</u> Dickens' time	BE-0017.1
6	på	with	in	We should take care <u>in</u> how our children spend...	AG-0019.1
7	på	in	Ø	even the most primitive human race used their imagination, and <u>Ø</u> this way found ways of survival.	AC-0013.1
8	på	to	towards	a reaction <u>towards</u> our daily lives	BE-0019.1
9	for	of	to	in awe <u>to</u> modern technology	AG-0017.1
10	til	out	into	people seek <u>into</u> new religions ¹²³	BE-0019.1
11	til/for	of	about	People have always been suspicious <u>about</u> it.	AC-0001.1
12	ved	to	of	There are always negative and positive sides <u>of</u> things	AC-0021.1
13	om/på Alternative: Ø	of Alternative: Ø	of Alternative: Ø	sometimes I stop to remember myself <u>of</u> the important things in life	AC-0001.1

There are two instances where the NICLE writers have chosen *at* as the correspondent for *på* (numbers 4 and 5 in Table 30). Here there may be two factors at play which contribute to the choice of *at* for *på*. First, the preposition *at* is a close runner-up as the translation equivalent to the basic sense of *på*, something implied by Strandskogen and Strandskogen; in their list of English correspondents to Norwegian prepositions, they

¹²² The extended co-text of this instance follows:

It is being said that with this development, with all the science technology and industrialisation, there is no longer a place for dreaming and imagination. I cannot agree to that.

¹²³ Alternatively, this could be a case of NCNP: *seek new religions* rather than *seek out new religions*.

deviate from their usual practice of listing only a single alternative by listing both *at* and *on* as potential English equivalent of *på* (Strandskogen and Strandskogen 1986: 156). Second, as discussed in section 7.8.2.1 above, the basic Norwegian correspondent to *at* is more difficult to pinpoint than is the case with most of the other Norwegian spatial prepositions because not only does it correspond to many different Norwegian prepositions depending on context, but at times the meaning intrinsic to *at* is realized by a suffix in Norwegian rather than a preposition. Both factors are generally recognized challenges for L2 preposition acquisition.

One of the *at/på* cases, presented in (109), is similar to the potential case of L1 transfer between *on* and *på* presented in (103) in the phrase *on his spare time*, in that both deal with the different linguistic realizations of the concept of time in the two languages.

(109) Today, the development have reached even further than at Dickens' time, yet the dreams of human beings are still alive. ICLE-NO-BE-0017.1

Both (103) and (109) refer to a relatively long period of time, something for which the Norwegian preposition *på* is appropriate. In such instances where the time period is long enough to be mentally represented as a frame, the English preposition *in* with its container imaging is an appropriate choice. Similar to (103), *on* would be infelicitous here, but so is *at* whose basic, spatial meaning is extended to the domain of time, where it refer to points of time rather than extended periods (Lindstromberg 1998: 75-77).

The second *at/på* case involving a preposition triad is an instance where *at* has been chosen as a correspondent to *på* in a situation that calls for the English preposition *for*. The particular context concerns playing for a soccer team, and the entire sentence is presented in (110).

(110) Young people, especially boys, dream that they are playing at Manchester United. ICLE-NO-AG-0007.1

In this situation, the Norwegian preposition *på* adds focus to the notion of contact between the players and team, perhaps reinforced by the team having a physical base in the form of an actual horizontal playing field. The English preposition *at* differs in this regard because it does not necessarily entail contact with a surface (Lindstromberg 1998: 165). Indeed, in this context English appears to focus on the ideas of benefit and support, which Lindstromberg argues is a “near-central” sense of *for* linked to its general metaphorical sense of ear-marking (Lindstromberg 1998: 227-228). In other words, the boys would be supporting Manchester United through playing for the team. The preposition *at*, by contrast, has no such inherent “benefit” sense included in its metaphorical extensions.

Another misalignment to which more than one NICLE writer is susceptible is seen in the two cases of preposition triad, numbers 2 and 3 in Table 30, where Norwegian *i* is rendered as English *to* rather than *with*. Both NICLE instantiations involve the same general context – one with the verb *agree* and the other with *disagree*, the intended sense being the MED1 [agree] sense of sharing an opinion (or not in the case of *disagree*).¹²⁴ One such case is cited in full in (111).

(111) I could not have disagreed more to such a statement. ICLE-NO-HO-0023.1

This sense is comitative, which in English triggers the prototypical preposition of accompaniment, *with*. With a complement as abstract as a statement, the sense is a metaphorical extension from its basic meaning of what Lindstromberg (1998: 208) calls “nonspecific [physical] proximity”.¹²⁵ The typical comitative preposition in Norwegian is *med* (Faarlund et al. 1997: 438-439), the basic translation correspondent to *with*, so in theory there should be no difference between preposition usage here. In English, however, the complement of *with* in its MED1 sense can be either a person (e.g. *I agree with you*) or an opinion held or articulated by a person as in (111). The latter complement instantiates a metonymy between person and his/her belief, and the former corresponds more closely to the core idea of bi-directionality between trajector and landmark (i.e. *I agree with you* implies *You agree with me*). Norwegian separates these two meanings, such that *med* is employed when agreeing with a person and *i* is used when agreeing with an idea. An idea/statement/etc. is thus mapped in Norwegian as an enclosure in which “agreement” is contained. This distinction is compatible with English, where one can be “in agreement with” someone, but in the absence of explicit mention of both person and idea the overarching comitative sense dominates. Lindstromberg notes that communication words such as (*dis*)*agree*-*ment* are frequently accompanied by *with* due to the prototypical scene of two people communicating while in close proximity combined with the sense of cooperation generally required for successful communication (Lindstromberg 1998: 212). In short, Norwegian and English share the underlying concepts but emphasize slightly varied versions of the “agreement” scenario, resulting in the use of “non-corresponding” prepositions of *i* and *with*.

¹²⁴ It should be noted that the verb *agree* can colligate with the preposition *to*, but then the meaning shifts from MED1 of agreement to MED2: “to say that you will do something that someone else wants or suggests,” a meaning which does not match that expressed in either NICLE sentences.

¹²⁵ The basic meaning of *with* is divided between three MED entries: MED1: “together,” MED2: “having or holding something [if concrete],” and MED3: “by means of something [if concrete].” Lindstromberg thus neatly summarizes an otherwise cumbersome expression of the basic meaning.

There is no clear explanation for the selection of *to* in both of the triad cases involving *with/i*, although both *to* and the Norwegian preposition *i* share a more depictable spatial sense than *with*, something which may have contributed to the choice. But as Lindstromberg explains, *to* is usually inappropriate in collocation with verbs of communication such as in (111). Unlike with the preposition *with*, the trajector and landmark of *to* are not interchangeable due to the focus on path and end-point that is such an essential feature of the basic meaning of *to*. Hence, *to* is better suited to a meaning of one-way communication (compare e.g. *X talks with Y* and *X talks to Y*) (Lindstromberg 1998: 212). Although illustrated by two instances from separate texts in my data, the *i/with/to* constellation is not a stable one favored by Norwegians. Indeed, there are two comparable instances among the potential L1 transfer cases of divergent congruence (both in the same text), where *i* has been rendered by its basic English translation equivalent *in*. These two cases are listed as numbers 5 and 6 in Table 29, and the first instance is presented in full in (112).

(112) I do not quite agree in this assertion, because industrialisation does also make the everyday much easier for us and gives us more sparetime as well. ICLE-NO-AG-0012.1

Further exploration of the NICLE corpus shows that the various forms of the verbs *agree* and *disagree* appear in that corpus a total of 13 times. Six of these instances exemplify an intransitive use (e.g. *I do not agree*) or a transitive use where the verb is followed by a finite clause (e.g. *It is generally agreed that...*). Four of the seven remaining instances, *agree/disagree* + prepositional phrase, have found their way into my data for novel metaphorical prepositions, whereas three correctly employ *with*. By way of comparison with the LOCNESS, *agree/disagree* appears there 9 times: once intransitively, twice followed by a finite *that*-clause, and six times followed by a prepositional phrase whose head is *with* – that is, the LOCNESS writers exhibit no similar collocational problems in this area.

The final example, listed as number 13 in Table 30 and cited in full in (93), is incongruous in a list of the preposition triads, as there is no third preposition.

(113) But sometimes I stop to remember myself of the important things in life; the things beyond money and glamour. ICLE-NO-AC-0001.1

Here, we see an incongruous reflexive verb, *remember myself*, which causes ambiguity. One possibility is that this selection is the result of L1 transfer from the Norwegian reflexive verb *minne meg selv* [lit: *remind me self*]. Indeed, both translators selected this verb in their Norwegian renditions of (113). If one accepts this, the root of the problem here is related to the infelicitous choice of the verb *remember*, rather than the preposition. The relationship is

congruent in that both languages require prepositions in this context: Norwegian calls for *på* or *om* and English requires *of*. This constellation is not one of Basic Congruence, nor of possible L1 transfer or the infinitive subtypes of Divergent Congruence. Thus, it falls into the category of preposition triads almost by default, as this appears to be the closest option. A second possibility is that the verb *remember*, rather than *remind*, is intended by the writer, i.e. a more passive recollection (*remember*) as opposed to the causative act of making someone aware of something forgotten (*remind*). In this case, neither the reflexive pronoun *myself* nor the preposition *of* are contextually appropriate. Here the zero preposition would be correct, as it would with *huske*, the closest Norwegian correspondent to English *remember* – in such a case, the relationship would switch to Basic Congruence.

7.8.2.3 Infinitive

This third type of Divergent Congruence concerns cases involving a combination of preposition and non-finite form – a form which, in Norwegian, is always the infinitive. I propose three related reasons for why this particular construction poses challenges for the Norwegian learner. First, both the preposition *to* and the infinitive *to* share the same form even though they have different functions. This is, in itself, enough to cause confusion for learners. Second, as already mentioned in section 7.6.2, Norwegian permits the combination of preposition and infinitive marker. Constructions such as *vi gleder oss til å besøke henne* [lit: *we are looking forward to to visit her*, Eng: *we are looking forward to visiting her*] are therefore acceptable in Norwegian but not in English. Third, English has witnessed the development of the gerund, whereas Norwegian has not. In terms of preposition congruence, this inter-linguistic misalignment tends to result in either divergent congruence or a non-convergent relationship where Norwegian requires a preposition but English does not. For the sake of convenience, NICLE instantiations of both types are discussed together in this section.

To begin, the preposition *to* and the infinitive marker *to* are historically linked (Los 2005: 162). Fischer writes, “It is generally recognized that the allative preposition *to*...developed into an infinitival marker when it became combined with an infinitive,” (Fischer 2003: 451). She maintains, however, that the picture is actually more nuanced, in that the preposition *to* and the *to*-infinitive never completely diverged, as was the case in other Germanic languages such as Dutch. Instead, the development of the *to*-infinitive reversed course somewhat to once again approach the meaning of the preposition, a

phenomenon known as layering, whereby old and new forms co-exist in a language.

According to Fischer, such developments have consequences for the language learner:

Layering, as opposed to divergence, must mean in terms of language learning that for the speaker the two items are still associated, that they belong to the same prototype. Presumably the preposition *to*, being more meaningful, is also more prototypical. (Fischer 2003: 459)

Fischer's diachronic study shows that while the metaphorical extension of the preposition *to* usually involves a mapping between place and time, the *to*-infinitive regained a slightly altered form of this mapping by re-acquiring a sense of goal which is then extended to "indicate future (tense) or possibility (modality)" (Fischer 2003: 459). Whether or not Fischer's proposed explanation concerning the historical development of the distinction between the infinitive marker and preposition is accurate,¹²⁶ it nevertheless appears that not only are the two lexemes historically related, they also share an identical form, something which may confuse L2 learners of English whose knowledge of syntax might in any case have significant gaps when it comes to the function of these words. This possibility would seem to lie at the heart of Austad et al.'s explicit warning to Norwegian students of English of the distinction between these two apparently similar words (Austad et al. 1999: 106).

Other Germanic languages have not developed similarly with regard to the split between preposition and infinitive marker. The infinitive marker in such languages has not only become semantically bleached but has remained so, allowing for instance for the continued combination of infinitive marker and preposition in Norwegian. Indeed, searches of the LBK for combinations of various prepositions adjacent to the infinitive marker return an almost endless number of hits. By way of contrast, for example, Fischer notes the degeneration from Middle English onwards of the *for to* marker as an indicator of purpose in favor of increased usage of the *to*-infinitive.¹²⁷ She argues that this shows how the infinitive marker gained semantically, becoming in some sense more akin to the preposition from which it was derived (Fischer 1992: 317-324, 2003). In any case, Contrastive Analysis would indicate that the lack of a close parallel to the Norwegian syntax could be the source of problems in the L2. This fact is not lost on Austad et al., who offer the following rhyming rule of thumb to help Norwegian students remember this point: *Preposisjon + å kan ikke gå*" [translation: *preposition + [infinitive] to can't work*] (Austad et al. 1999: 107).

¹²⁶ Los, by way of contrast, argues that the *to*-infinitive grew at the expense of the subjunctive clause rather than through competition with the bare infinitive (Los 2005).

¹²⁷ This particular construction is currently acceptable mainly in certain dialects of American English (e.g. *I'd like for to go/I'd like for you to go*), where it is regarded as an example of lexical rather than syntactical variation (Wolfram and Schilling-Estes 2006: 384).

A further difference between English and other Germanic languages involves the development in Middle English of the gerund, one of four non-finite forms in English (along with the infinitive and the present and past participles). Lass, for example, explains that the development of the gerund is both “complex and murky,” but the end result in present-day English is an infinitive and gerund which are both syntactically noun-like (e.g. *To write is easy / Writing is easy*) (Lass 1992: 144-145). What this entails is that the Norwegian preposition + infinitive construction corresponds in English to either the infinitive alone (where the infinitive marker *to* contributes semantically) or to a combination of preposition and gerund. As a result, students may experience some confusion when having to select an appropriate non-finite form in English, not having a solid grasp upon when context requires the infinitive and when it requires the gerund. This is borne out by the NICLE material, as seen in the examples presented in Table 31.

Table 31: Anomalous NICLE renditions of the Norwegian preposition + infinitive construction

	NICLE translation	Suggested English	Congruence type	Immediate context	ICLE-NO-
1	med å / ved å være	about being	DCongr	One of the good things <u>of being</u> a human being is...	HO-0023.1
2	på å se	to seeing/on seeing	DCongr	one of their first reactions <u>of seeing</u> the ocean	AG-0007.1
3	til å drømme	for dreaming	DCongr	the question is wether these materialistic concerns leave us some time <u>Ø</u> dreaming and using our imagination	BE-0002.1
4	i å realisere/ i å få oppfylt	from making	DCongr	and will prevent people <u>to make</u> their dreams come true.	AG-0012.1
5	for å / til å sette	of putting	DCongr	we have the possibility <u>to put</u> word on what we desire	HO-0023.1
6	til å forestille seg ting / til å finne på	to make believe (infinitive)	NCNP	computer games ruin the child’s fantasy and it’s ability <u>to make-believe</u> .	AG-0007.1
7	til å nå	to reach (infinitive)	NCNP	if the ability <u>of reaching</u> our imaginative perfect world lies in the hands of	AC-0001.1
8	for [ikke] å snakke om	[not] to mention (infinitive)	NCNP	and <u>for not to be mentioning</u> media.	AG-0012.1

These instances have appeared in my data either because a novel metaphorical preposition has been identified or the expected preposition was lacking in the NICLE text, i.e. the zero preposition. Only two such examples emerge from the LOCNESS material. One instance is (114), where the learner has chosen a combination of preposition + gerund rather than the infinitive *to help* whose semantics of goal orientation would have been appropriate.

(114) Through no fault of her own she could have a blocked fallopian tube causing her to be unable to allow eggs down to the womb and it is only fair in helping her to have children. ICLE-ALEV-0003.8

The other involves a case where the writer employs the infinitive instead of the preposition + gerund combination (*The debate to have fertility treatment is...*[ICLE-ALEV-0003.8]). The absence of any further corresponding instantiation in LOCNESS indicates that this linguistic conundrum is a non-issue for the British students. However, the true extent of the difficulties which this lack of correspondence with respect to the acceptability of a preposition + infinitive construction actually present for Norwegian learners of English cannot be judged on the basis of my data. The examples in Table 31 only show those cases where a problem in choice of preposition manifests itself, rather than all instances relevant to the construction. Cases where the writers selected the conventionally accepted preposition but incorrect non-finite form have not been identified here, due to this study's focus on metaphor. Similarly, instances where the NICLE writers have produced non-anomalous language by writing the appropriate forms have also gone unmarked in my data. Although beyond the scope of this dissertation, further study of this area is warranted.

When it comes to the examples presented in Table 31 that have been extracted from the NICLE data, one example in particular – *it's ability to make-believe* (ICLE-NO-AG-0007.1) – would appear to result from a substance level error, a misspelling caused by the over-inclusion of the hyphen. A morphological error is certainly not unlikely given the additional evidence provided by the over-inclusion of the apostrophe in *it's*, indicating that the learner has difficulties in this area. This case has been marked in my data on formal grounds; *make-believe* is a nominal compound, which means that the preceding *to* must be a preposition – and hence anomalous.¹²⁸ Deletion of the hyphen constitutes the most straightforward means of correction, changing the *to* from preposition to infinitive marker. As both preposition and infinitive marker share a sense of goal orientation, however, the learner was on the right track in terms of metaphorical images. Goal orientation also is evident in the two other non-congruent listed cases in Table 31 where the infinitive is required in English instead of preposition + gerund.

Furthermore, in all three non-congruent cases, the respective landmarks (i.e. *to make believe*, *to reach our imaginative perfect world*, and *to not mention media*) are best conceived of as acts. In the five congruent cases, by contrast, the landmarks can better be

¹²⁸ WebCorp searches for the strings *to make-believe* and *to make believe* return confirms the oddity of this use of *make-believe*. Specifically, the search produces only 3 concordances of the former construction as opposed to 58 concordances of the latter phrase.

conceived of as activities or situations. Lindstromberg argues that the primary difference between these types of landmarks is the sense of “in the momentness” associated with them, that is, “one can be in the midst of [activities/situations], even if only for a very short time” (Lindstromberg 1998: 242). In examples 1-3 in Table 31, the NICLE writers have correctly employed gerunds, appropriately appealing to the “on-goingness” sense which the *-ing* form specifies. The problem in these three cases is therefore restricted to choice of preposition. In numbers 1 and 2 we find the vaguest English preposition *of*, whereas the preposition is omitted entirely in number 3. Were it not for the non-finite form following the preposition, these cases would have qualified as cases of preposition triads.¹²⁹

The two remaining Divergent Congruent cases in Table 31, numbers 4 and 5, have the combined problem of inappropriate preposition and inappropriate non-finite form. In both cases, the gerund would seem to be called for as a means of expressing the durative nature – or “in the momentness” – of the activities in question. Number 4, quoted in full as (115), is interesting as an illustration of the difference in meaning conveyed by the prepositions *to* and *from* after verbs with senses similar “keep from.”¹³⁰

(115) This can make it hard for some to get a job, and will prevent people to make their dreams come true. ICLE-NO-AG-0012.1

Here, the learner interchanges the goal-oriented meaning inherent in the infinitive marker with that of the preposition of path *from*. The infinitive marker *to* and the preposition *to* both semantically focus on the end-point of a path, whereas the basic meaning of *from* is the opposite, describing a path from its starting point. Lindstromberg (1998: 43-44) neatly explains such constructions as variations on the prototypical meaning of *from*. In brief, the metaphorical end-point here is an activity (*making dreams come true*), activities (and situations) having the quality of being “regularly spoken of as if they were physical entities – e.g. as enclosures...or as locations” (Lindstromberg 1998: 242). The meaning inherent in the verb *prevent* indicates that this end-point, a metaphorical location, will not be reached. Here the prototypical meaning of the preposition *to* is negated. The reversal of *to* (that is, “not to”) is expressed by its diametrical opposite, *from*. Both translations of this sentence

¹²⁹ Basic Congruence would also be a possibility in example number 2 in Table 31 (again, were it not for the following non-finite form which led to the “infinitive” classification), where either *to* or *on* are appropriate. Comparative Google searches of *reaction(s) to seeing* and *reaction(s) on seeing* indicate, however, that the former preposition is far more frequently employed (roughly 2.6 million hits as opposed to 60,000 hits).

¹³⁰ Mair, however, notes what he calls an “incipient innovation” in British English of “from-less” gerunds following verbs such as *prevent* and *stop*, something which is not the case in American English (Mair 2002: 112-115). If such is the case, then this particular instance would then be classified as NCNP, where the Norwegian preposition + infinitive construction corresponds best to a gerund alone, rather than to the infinitive.

indicate that this relationship is expressed in Norwegian by *i*, the the basic correspondent to English *in*, which involves the underlying conceptual image of enclosure rather than location on a path.

7.8.3 Ø Congruence (ØCongr)

There are only 5 instances of the Ø Congruence type in my material. They represent a mixed bag, including two cases of ostensibly inadvertent inclusion as in *I will not bow down to in awe to modern technology* (ICLE-NO-AG-0017.1). One case, *People claimed for shorter working days...* (ICLE-NO-BE-0009.1), involves a verb which inherently includes the intrinsic meaning of the preposition, thereby making the preposition redundant. Both translators render the verb *to claim* by the Norwegian verb *å kreve* [translation: *to demand*], which also requires no colligating preposition. The fifth case involves the phrase *at home*, presented in (116).

(116) You can take your work with you at home, and choose when you want to do it. ICLE-NO-AG-0012.1

This instantiation involves the contrast between Norwegian *hjemme* [translation: *at home*] indicating location and *hjem* [translation: *(to) home*] indicating direction of movement has already been mentioned in the discussion of L1 transfer and example (108). In the context of (116), no preposition is required in either Norwegian or English, as *home/hjem* suffices. The odd note here is the choice of *at* rather than another preposition such as *to*. If the learner is to add a superfluous preposition, then why one that conveys the static spatial sense of *at* rather than the dynamic sense of *to*, a preposition of path? The choice could be the result of homoiophobia, prompted by the infrequency and perceived peripheral nature of such “intransitive” prepositions. In addition to this, the phrase *at home* is one that is easily presented by teachers and in textbooks and learned as a phraseological chunk, such that a learner might produce it automatically, almost by rote, without the necessary contextually required variation.

7.8.4 Non-congruence, NCNP

Although the 10 NCNP cases of non-congruence are diverse, some patterns can be spotted upon closer examination. The instantiations are presented with their immediate context in Table 32.

Table 32: Instances of Non-congruence (NCNP)

	Norwegian source preposition	Suggested English preposition	NICLE English preposition	Immediate context	ICLE-NO-
1	til	Ø	of	the ability <u>of</u> reaching our imaginative perfect world	AC-0001.1
2	for	Ø	for	<u>for</u> thousand years ago.	AG-0012.1
3	for	Ø	for	and <u>for</u> not to be mentioning media.	AC-0001.1
4	på	Ø	on	a students' dream of passing <u>on</u> a final exam	AC-0001.1
5	for (at)	Ø	about	everyone was worried about the computers and their technology wouldn't manage the transition	AC-0013.1
6	blant	Ø	among	visions and fantasy still flourish <u>among</u> humanity	BE-0019.1
7	over	Ø	over	to satirize <u>over</u> the industrial society	BE-0017.1
8	foran	Ø [polyword: <i>in front of</i>]	Ø	they sit in front <u>Ø</u> the TV	AG-0012.1
9	til (å)	Ø	to	the child's fantasy and it's ability <u>to</u> make-believe	AG-0007.1
10	på	Ø	on	using the telephone or surfing <u>on</u> the internet.	AC-0013.1

L1 transfer influence plays a possible role in most of these instances, three involve verb + preposition combinations in Norwegian best rendered as particle-less verbs in English. In (117), the choice of the preposition *over* is superfluous.

(117) Charles Dickens pictures in his book “Hard Times” Mr. Gradgrind “a man of fact and calculations”, to satirize over the industrial society and its lack of dreams and imagination.
ICLE-NO-BE-0017.1

Although the figurative “over” sense relating to the metaphorical path of the satire is appropriate, it is subsumed in English within that of the verb *satirize* and is therefore redundant. The best Norwegian equivalent, however, is *satirisere over* [lit: *to satirize over*, Eng: *to satirize*], allowing the conclusion that *over* was written due the influence of the L1. The same type of influence is seen in (118), where the Norwegian correspondent is *stå på en eksamen* [lit: *stand on an exam*, Eng: *pass an exam*].

(118) Dreams can be as innocent as a little girls dream of becoming a ballet dancer or being asked to the prom by the guy she has had her eye on the last three months, it can be a students' dream of

passing on a final exam to go on to law school or a football teams' dream of winning the world championship for the first time. ICLE-NO-AC-0001.1

Unlike *satirize on*, however, *pass on* is an English phrasal verb in its own right, referring to the giving of something (concrete or abstract) which you have received from another. This would thus involve a mapping of the path/orientation sense of *on*, where the trajector (*a final exam*) continues its journey from A to C via B, which is clearly inappropriate in the given context. Here, therefore, the infelicitous preposition could be misleading, rather than simply superfluous.

A further case of negative L1 transfer found in the NICLE material is the classic case involving the Norwegian use of *for* in the construction *for...siden* referring to time, as in (119).

(119) We are not the same as for thousand years ago. ICLE-NO-AG-0012.1

This is a mistake commonly noted in Norwegian learner production (see Austad et al. 1999: 103), so it is somewhat surprising that only one such instance is found in my material. Both Norwegian and English *for* can be employed to refer to the domain of time in the sense of duration, although Faarlund et al. (1997: 434) explain that the temporal use of *for* is restricted to verbs which express a planned period of time as in *Vi leide hytta for fire uker* [translation: *We rented the cabin for four weeks*], while other prepositions such as *i* or *på* are otherwise required. As for the *for...siden* combination, Faarlund et al. simply say that it is used primarily in a temporal function (Faarlund et al. 1997: 430). The discrepancy between the two languages when it comes to this point may be related to their historical development. As such, it goes beyond the immediate scope of my project, but would be an interesting point to explore. Indeed, a look at other Germanic languages reveals that there is a great deal of variation used to express this fairly common concept. For example, while English has *one week ago* and Norwegian *for en uke siden*, Danish and Swedish follow the same pattern as Norwegian with *for en uge siden* and *för en vecka sedan* respectively. Icelandic retains two competing forms, *fyrir viku* and *fyrir viku síðan* where *síðan* is a loan word from Danish. Dutch, by contrast, corresponds more closely to English with *en week geleden*, while German opts for yet a third possibility of retaining the preposition alone in *vor einer Woche*.

Furthermore, as already discussed in section 7.8.2.3, three of the NCNP instantiations involve cases which in Norwegian call for a combination of preposition and non-finite form. These cases are listed in Table 31 as numbers 6-8, the last of which is presented in full as (120), where the phrase *for not to be mentioning media* has been

rendered into Norwegian by both translators as *for ikke å snakke om media* [lit: *for not to speak about media*].

(120) Now, though, you are surrounded by science technology: cell-phones, computers, electronics, and for not to be mentioning media. ICLE-NO-AG-0012.1

The choice of preposition here appears to be motivated by L1 transfer of the Norwegian preposition *for* to the English preposition *for*. As already discussed, the choice of gerund could result from language divergence, i.e. where Norwegian has only one form (the infinitive), English has two (the infinitive and the gerund). Such divergence can cause confusion as to when to select which form.

In addition to these three cases involving the non-finite form, there is one instantiation of yet another construction known to cause difficulties, illustrated in (121).

(121) Take for example: New Years Eve 2000, how everyone was worried about the computers and their technology wouldn't manage the transition, important medical equipment was in jeopardy of not working which could have had some serious consequences on people's lives. ICLE-NO-AC-0013.1

Again we find a construction licensed in Norwegian but not in English. To be specific, Norwegian permits the combination of preposition and subordinating conjunction, as in *Jeg var overrasket for at han var så snill* [lit: *I was surprised for that he was so nice*]. So common is this problem that Austad et al. cite a rhyming rule of thumb to help students remember that the construction is not permitted in English: "Preposisjon og *at* er som hund og katt" [translation: Preposition and [subordinating conjunction] *that* are like dog and cat] (Austad et al. 1999: 108). This particular problem can be solved in one of two ways: substituting the conjunction *that* for the preposition *about* (making the case NCNP) or adding the word *how* after *about* – in which case this would be an example of Basic Congruence between Norwegian *om* and English *about*, and the choice of preposition is appropriate. Thus, in this particular case, the main problem is the construction rather than actual preposition.

One case of NCNP appears to be the result of inappropriate lexical choice for the complement of the preposition, seen in (122).

(122) There are plenty of examples seen everyday in our modern world on how visions and fantasy still flourish among humanity. ICLE-NO-BE-0019.1

In (122), we see an uncountable noun, *humanity*, as the complement to a preposition that implies countability. Translators thus offered two alternatives for *among humanity*: both *i menneskeheten* [translation: *in humanity*] and *blant menneskene* [translation: *among people*].

A final point deserving of mention here concerns the tenth instance of NCNP, reproduced in (123).

(123) We see the fruits of this development everyday by watching television, using the telephone or surfing on the internet. ICLE-NO-AC-0013.1

This preposition has been characterized as novel because the collocation *surf the internet* is codified in ESL dictionaries, while the collocation *surfing on the internet* is not. A WebCorp search for the strings *sur[f]fs[fing]fed]the [intern]et* and *sur[f]fs[fing]fed] on the [intern]et*, however, produces 88 and 50 matches respectively. Hence, while strict adherence to such dictionaries as tools in the determination of the degree of conventionality allows for the conclusion that this usage is unusual, web searches indicate that this usage is, in fact, conventionalized. It would simply appear to be the less frequent of two conventional possibilities. A similar point was made in section 6.8 with regard to non-deliberate lexical metaphors which are non-conventionalized in the sense of not appearing in standard dictionaries despite demonstrably common usage.

7.8.5 Non-congruence, NCEP

There are 3 cases of non-congruence where English requires a preposition but Norwegian does not. Only two of these instances unambiguously fall into this category as both translators opted for the same translation strategy. The first unambiguous case, (124), is interesting in that it involves the concurrent use of two prepositions, *in* and *within*, either of which employed alone would have constituted a conventional metaphor, a mapping of space to time. Together, however, they are ostensibly redundant. As such, they could be the result of a one-off mistake where the writer first wrote the one preposition and then reconsidered and wrote the second one, forgetting to delete or erase the first.

(124) Even better, you could take an airplane and visit him in within a few hours. ICLE-NO-AC-0021.1

On the other hand, a search for *in within* in the BNC generates 17 matches, of which nine correspond to the double usage evident in (124). Of these nine cases, 6 refer to geographical areas such as *...farmers operate a different practice in within the the catchment area* (G4U 341), which may be interpreted through metonymy whereby the artificial mental representation of a particular area is based on an actual physical location. The remaining 3 are metaphorical, one referring to a medical dosage (*...it's very very safe provided you keep in within the sort of dosage* [G5X 121]) and two referring to time as in *Well I mean it's, it's well as soon as, it's, well did you write in and object in within the time?* (KE2 266).

Lindstromberg makes two relevant comments concerning the difference between *in* and

within. First, he writes that although both prepositions share the same core meaning of being surrounded, *in* has a number of secondary meanings which *within* does not share, such as with linear landmarks (e.g. one can physically *stand in line* but not *stand within line*; metaphorically something can be *in alphabetical order* but not *within alphabetical order*). The preposition *within* conveys that the trajector is surrounded, and also often implies that the trajector lies somewhere in the center of the enclosure. Second, he claims that *within* is a more emphatic, albeit “pseudo-archaic” form of *in* (Lindstromberg 1998: 70-74). Thus, if *within* is more emphatic than *in*, then the double whammy of both prepositions combined could contribute to an even stronger focus on the metaphorical enclosure and boundaries of the “few hours” in (124). In a sense, this usage seems to reflect thought processes. Here it can be noted that of the nine pertinent BNC correspondents, all but one are examples of spoken English and show many signs of the various qualities associated with the online processing that spoken language demands, such as hesitations and disfluencies. The BNC examples quoted above exhibit disfluencies with the repeated definite article in one sentence, and false starts and abandonment in another. In the case of (124), the written language of NICLE thus appears to more closely match the spoken language of English L1 speakers.

The remaining unambiguous case of non-congruence involves a construction which is expressed in Norwegian by a verbal compound, as presented in (125).

(125) Does it deprive us from social contact? ICLE-NO-HO-0029.1

Both translators render *deprive from* as Norwegian *frata* [lit: *from-take*], a verb which is translated in *Ordnnett* as *deprive of, take away (from)*. Hence, the choice of the preposition *from* can be attributed to L1 transfer. Here the appropriate preposition is *of*, which harks back to its original meaning of *off* with its inherent concept of a starting point from which one departs. Lindstromberg maintains that the main difference between *of* and *from* in such cases is that *from* signifies more “dynamic separation” than the former. He illustrates this point by contrasting uses in *We put the results from the tests into the computer* and *The results of the test were good*, where the preposition in the latter sentence invokes no visualization of movement of the results (Lindstromberg 1998: 203-204). In many instances, such as that in (125), this involves only a subtle difference, one that may be easily overlooked or missed especially when the influence of the L1 points in another direction.

7.9 LOCNESS

One proposed explanation for syntactical errors such as those involving prepositions in the written language of either NS or NNS students relates to cognitive overload. Such overload involves a type of cognitive strain; “When a writer, for example, struggles with a demanding topic or is composing in a second language, the working memory capacity might not be enough to consider linguistic and content demands simultaneously” (Lindgren 2004: 260). Intense concentration on content while attempting to master new material may lead to a temporary reversion in writing skills. This effect has been noticed, for example, by the developers of the writing program at the University of California Santa Barbara, who note increased numbers of preposition and subject-verb concord mistakes when their American students first begin to immerse themselves in new subject material. They also find that occasionally the texts become almost incomprehensible.¹³¹

The effects of such cognitive strain may play a role both in the language of the British A-level students, as well as that of the Norwegian students who are writing in an L2. Indeed, some of the topics of the English A-level texts, such as in-vitro fertilization, are complex ones with which teenagers are unlikely to have first-hand experience. The mock exam conditions under which the A-level essays were written could also have raised the stress level of the participants, affecting their abilities of expression. The time constraints imposed during such mock exams might also preclude the opportunity to review and revise texts, such that what might seem glaring mistakes in retrospect go unnoticed. In addition, preposition variation may also be a matter of dialect, something beyond the scope of this study.

There are 25 LOCNESS instantiations involving novel metaphorical prepositions, a figure which includes three cases of the zero preposition. All cases are presented in Table 47 in the appendix. Four instances are ostensibly cases of spelling errors resulting from oversight. Examples include letter omission where *of* is mistaken for *off* in *to kill of other bacteria* (ICLE-ALEV-0020.8), as well as letter exchange evident in several words in *...so people son't have faults of imperfections* (ICLE-ALEV-0026.1). Here we see that one such swap results in the production of the preposition *of* in place of the coordinating conjunction *or*. Two of the LOCNESS cases display faulty parallel construction, cases where ideas are joined using conjunctions. This is illustrated in (126) where both *fair* and *morally correct* govern the preposition *to*, a link which is inappropriate for the latter adjective phrase, which requires *for* instead.

¹³¹ Lunsford 2009, see footnote 102.

(126) I don't think this is fair or morally correct to the child... ICLE-ALEV-0003.8

Two of the LOCNESS instantiations involve cases which have been characterized as novel because standard dictionaries do not include evidence supporting the conventionality of the prepositional use in the context in which it appears in the corpus. However, further corpus-based investigation of these cases, such as Deignan advocates in her suggested methods for categorization of conventionality, shows that these particular collocations are perhaps not all that unusual in actual practice. An example of this is the use of *towards* employed in collocation with the verb *to tailor*, presented in (127).

(127) One of the main advantages is the ability to tailor other organisms genetic makeup towards man's needs. ICLE-ALEV-0023.8

The MED entry for the verb *tailor* explicitly details this verb's collocation with either *to* or *for*, a contention supported by the LM entry. Indeed, this makes some sense when one considers that metaphorical *to* specifies the endpoint of a path and *for* conveys metaphorical ear-marking in the sense that the "tailoring" here is specifically intended for meeting "man's needs." The preposition *towards*, by contrast, implies neither overt ear-marking nor a reaching of the end-point, but merely that the trajector comes nearer and nearer the landmark, in its direction. Its use here implies that the altering of the genetic constitution of organisms is made with some reference to man's needs, although such needs are not necessarily the ultimate goal or motivation. Judging from dictionary evidence, the use of this preposition in conjunction with the verb *tailor* would appear to be novel. WebCorp search for the string *tailo[rlredlring] towar[dlds]*, however, generates 147 concordances, and similar searches using Google alone also returns thousands of hit. Consequently, evidence from the web-based searches throws doubt on the extent to which such a combination can be regarded as novel. A similar line of reasoning holds true for the choice of *from* rather than *at* in (128).

(128) I hope no offence is taken from this. ICLE-ALEV-0021.8.

Parallel cases from NICLE have also been discussed (e.g. the collocation of *between channels* from example 11 in Table 29 and *surfing on the net*, cited in (123)).

There seems to be no easily discernible pattern to explain the remaining cases of LOCNESS novel metaphorical prepositions. Two are comparable to the NICLE cases involving the infinitive discussed in section 7.8.2.3, one of which has been cited as (114). One instance involving the use of the preposition *amongst*, presented in (129), yields a sentence which is difficult to interpret.

(129) Yet amongst the job losses through this,* in the UK students in sixth form wishing to go on to university are nearing the highest level they've ever been. ICLE-ALEV-0010.6
*[robots replacing people and computers]

Unlike the NICLE use of *between* discussed in section 7.8.2.1 where the border between the prepositions *among* and *between* has become blurred, one is left uncertain as to the contextual meaning of (129). Here, *amongst* may convey either causation (i.e. *due to/because of*) or concession (i.e. *despite*). In the case of (130), by contrast, the choice of preposition is also infelicitous but there is only one real option when it comes to interpretation.

(130) The case of IVF being performed as a post-menopausal women affects the child as well. ICLE-ALEV-0029.8

Here the prepositional phrase beginning with *as* functions as part of the post-modifier in a noun phrase. More specifically, the *as*-phrase is intended to indicate when the surgery is performed, the more felicitous choice of preposition would have being *on*. A WebCorp search of the string *performed as* produces 189 concordances, only one which (from Australia) corresponds to this sense.¹³² The majority of concordances fit the pattern seen in (131), where the prepositional phrase indicates manner of performance:

(131) This new method of total knee replacement can be performed as an outpatient procedure.¹³³

Other than that, a number of the LOCNESS instances involve either *for* or *of*, in that one of these has either been employed in a an inappropriate context, or on the other hand, that it should have been employed in place of another preposition. Sentence (132), for example, presents a case involving both these preposition, where *of* has been written in place of *for*.

(132) He was simply asked to design a machine gun for the czechoslovakian government: is he to shoulder the responsibility of the deaths caused by Kalashnikov rifles? ICLE-ALEV-0018.8

In such circumstances, the collocation of *responsibility* plus *of* conveys the partitive concept, as in *the responsibility of the teacher* where said responsibility belongs to the teacher. Here though, the allocation sense of *for* is required whereby the subject, *he*, is potentially ear-marked for blame.¹³⁴ As *of* and *for* are the least depictable of English prepositions, however, it stands to reason that they are sometimes misused, also by native speakers.

¹³² *Breast Reconstruction can be tailored to be performed as a teenager*. Source: <http://www.esteemdayspa.com.au/surgical/surgical-procedures/breast-reconstruction.html> (Retrieved January 21, 2010).

¹³³ Source: <http://www.rush.edu/rumc/page-1099918807992.html> (Retrieved January 21, 2010).

¹³⁴ This particular collocation is specifically discussed by Lindstromberg (1998: 221).

7.10 Concluding remarks

To sum up, although a relative overuse of novel metaphorically used prepositions constitutes the decisive factor explaining the greater amount of novel metaphorical language in NICLE than in LOCESS, there are only 70 cases of novel metaphorical prepositions in the total 1369 metaphorically used prepositions found in my NICLE material, amounting to slightly more than 5%. This number, of course, does not include every preposition used in an inappropriate manner because those cases involving mistakes with prepositions used in a literal sense are not included. Still, it certainly gives a good indication of the abilities of the NICLE students in this area, considering that 74% of the 1847 total number of prepositions in the corpus are metaphorical in use. In addition, there are 11 cases where a preposition is contextually required but not present. These figures, when compared to the number of preposition mistakes recorded in Kölmyr's study of the English of Swedish mixed ability teenagers, indicate that preposition use significantly improves with advanced English. Although the NICLE writers do not yet demonstrate the same level of preposition proficiency as the LOCNESS writers, whose novel metaphorical prepositions amount to approximately 1.5% of their total numbers of metaphorical prepositions, they nevertheless seem well on their way in terms of English preposition acquisition.

An adapted version of Nesselhauf's concept of congruence between L1 and L2 provides the framework here by which patterns of NICLE preposition use can be explained. Comparison of the NICLE novel metaphorical prepositions with their Norwegian translations indicates that 85.5% of them involve congruent relationships between Norwegian and English, where both languages require prepositions. When writing English, there is thus no need to extensively reorganize the syntactic structure with regard to preposition usage away from that of Norwegian. The majority of the convergent cases fall into the Divergent Congruence category, where Norwegian and English require different prepositions. A great percentage of these instantiations, in turn, ostensibly result from negative L1 transfer where an inappropriate English preposition is employed due to the correspondence between its basic meaning and that of the contextually-required Norwegian preposition. In addition, L1 transfer is also an important factor in the majority of the non-congruent cases where Norwegian requires a preposition. The L1 also plays a role when it comes to cases involving the infinitive (or subordinating conjunction *at*) + preposition construction which is accepted in Norwegian, but not in English. Here, confusion over the differences between uses of the infinitive and the gerund accentuate the problem associated with lack of correspondence between prepositions.

As discussed in section 6.3.2.3, Danesi holds that negative L1 transfer involving conceptual incongruity lies at the heart of problems involving metaphor in an L2. Philip maintains that, on the contrary, the problem is linguistic – we share the same underlying conceptual metaphors, but they are encoded differently in the various languages. Such mismatches can result in cases of metaphorically used words which are novel in their degree of conventionalization. Jarvis and Pavlenko distinguish between conceptual and linguistic transfer, but they offer no clear means of unambiguously distinguishing between the two. When it comes to prepositions, they make the case that different ways of encoding time and space in an L1 and L2, for example, may result in infelicitous preposition choice in the L2. At the same time, they claim that lexical transfer may result from semantic divergence, as when one word in the L1 corresponds to more than one word in the L2 in the case of partially deceptive cognates. This leads to the “interlingual miscalculation” of which James (1998: 147) writes, a miscalculation that can be compounded for Norwegian learners of English by the phonological and orthographical similarity of many of the L1 and L2 preposition forms (e.g. *for/for, i/in, av/of*, etc).

Conceptual transfer and linguistic transfer in the area of prepositions thus appear to be inextricably interrelated. Judging from Table 22 showing the possible English translation correspondents of Norwegian prepositions, we see semantic divergence is the rule rather than the exception. The crucial factor in determining the appropriate L2 preposition is context, however, so in this sense one can say that conceptual transfer trumps linguistic transfer. In the case of metaphorically used prepositions – which do not follow the pattern of the other word classes, being the only class with more MRWs than non-MRWs – the specific context requires the preposition to express a particular relationship involving some extension of a basic meaning not necessarily mirrored in both languages in the same ways, especially towards the arguably more peripheral metaphorical extensions. English and Norwegian share the same core conceptual concepts in this regard, which allows for the establishment of basic translation correspondents such as *på/on, i/in*, etc. These concepts, however, have fuzzy edges which sometimes require different linguistic encodings. Even slight variations on the means of conceptually dividing time and space can have consequences in the linguistic metaphor as it relates to L2 choice of preposition.

Of course, more peripheral extensions do not automatically entail different encodings in the L2, and the Norwegian learner is not always able to predict the appropriate English preposition. Cases of Basic Congruence, where the NICLE writer employs an infelicitous preposition in cases where the basic correspondent would indeed have been

appropriate, do appear. Here, homoiophobia may play a role, where the learner assumes that the more peripheral senses in the two languages are necessarily realized by prepositions whose basic senses do not correspond. Moreover, cases where positive L1 influence is overturned need not be limited to peripheral senses, but may be prompted by the consciousness realization that English is not Norwegian with the consequent implicit (or explicit) assumption that the “obvious” choice of basic preposition correspondent is incorrect. In general, however, it seems that the lure of negative L1 transfer tends to result in the production of infelicitous L2 prepositions more often than the overruling of the potential of positive transfer.

With regards to possible pedagogical implications, Low writes the following:

Though it is becoming popular to argue that prepositions and particles should be taught by bringing the nature or degree of metaphoricity to the learners’ attention, I want to argue for a degree of caution and to suggest the older, naïver direct method approach might just work more effectively in many cases. Most prepositions show very complex semantic structure, and we frequently do not understand what motivates certain senses. Teaching all of them cognitively becomes a highly complex and time-consuming task, with no guarantee that the learner will (a) understand the concepts involved, (b) understand the sense of the expression, or (c) actually use the expression in real discourse. (Low 2008: 224)

Low has a valid point in that an indiscriminate approach linking prepositions and metaphor in the L2 classroom may consume precious class-time and produce little in the way of positive practical results. Indeed, Lindstomberg’s 1998 book painting a picture of preposition systematicity which caters to a broad audience of both native and non-native speakers of English is highly detailed and can seem overwhelming to all but the – as Norwegians might say – “specially interested.” Moreover, it is again important to stress that I do not contend that such novel metaphorical use is deliberate, either in terms of production or reception. Like many of the novel lexical metaphors discussed in chapter 6, these novel uses of prepositions constitute either mistakes or errors. Some of the mistakes can be attributed to nothing more than sheer inadvertence, where for example the letter “f” has been omitted from *off*. On the other hand, the traditional alternatives discussed in this chapter of 1) ignoring prepositions or 2) presenting a correspondence list and in effect telling the students to buckle down and start memorizing – while sometimes also explicitly stating that there is no rhyme or reason which can explain preposition use – also have their clear drawbacks.

One might therefore be well advised to strive for a golden mean by combining aspects of both a traditional approach to prepositions and an approach inspired by Cognitive Metaphor Theory. Certain L1 and L2 prepositions are perceived as being primary

correspondents on the basis of their basic meanings, typically (although not always) supported by phonological and/or morphological similarity between the two prepositions. Presentation of these correspondences to language learners is certainly constructive and, in many cases, sufficient. On the other hand, such a presentation may prove deceptive by implying that there are one-on-one correspondences for prepositions, also in their metaphorical extensions. Explicitly tracking the two chains of metaphorical reasoning involved in the L1 and L2, which are usually based on different ways of metaphorically segmenting space, provides a means of making the metaphorical images underlying the various prepositions explicit. Where a traditional grammar may not be able to offer any real explanation of why one certain English preposition is appropriate rather than another, an approach relying on the precepts of the Cognitive Metaphor Theory may prove more useful. Metaphor can serve as a means of demystifying what may otherwise seem inexplicable.

Rather than a blanket approach where one teaches all L2 prepositions in relation to their metaphorical nature, however, one could modify such a presentation to take into account findings from Contrastive Interlanguage Analysis, by targeting a specific group of learners and their most likely problems. This study has first shown that general problems involve a fairly limited set of prepositions, namely those most frequent in terms of overall use. In other words, there are some tendencies which may explain a group of instantiations of metaphorical prepositions, rather than just isolated cases. Explanations offered on the basis of metaphor can provide one means of accounting for what otherwise seem random individual instances of preposition misuse, providing tools to explain learner errors.

There are some particular problem areas where an approach via metaphor could especially benefit language learners. These include, for example, differences between *på* and *on*, where the basic foundation sense of the Norwegian preposition appears to play a more influential role when it comes to metaphorical extensions than does the foundation sense inherent to *on*. Such awareness is useful for both Norwegian learners of English and L1 English learners of Norwegian. The latter group, for instance, may realize that they need to employ *på* in far more circumstances than are appropriate for *on*. Moreover, a general overview of the prepositions used in English for various time periods (e.g. *at 3pm, on Monday, in a week*) as for example Lindstromberg offers, combined with a comparative overview of Norwegian time prepositions may also prove helpful. Norwegian learners also deserve more guidance in the use of *at*, an especially problematic preposition due to its lack of a clear Norwegian correspondent. In addition, overt explanations about the differences between the infinitive marker in Norwegian and English where the English infinitive marker

to retains some of the metaphorical sense of the preposition *to*, together with the division in English of an infinitive and a gerund, may also provide exactly what some students require to grasp the distinction and thereby avoid random guessing. The explanations proposed in this chapter for various individual cases are speculative, but they follow logical reasoning from the observations reported in this chapter about the application of the Conceptual Metaphor Theory to the combination of my NICLE and LOCNESS data and the corresponding translations. As such, they provide a model for a more systematic crosslinguistic approach to preposition use targeted towards the Norwegian learner of English, an improvement on the “we just don’t say it like that” mantra.

8 Summary and conclusions

8.1 Summary of principle findings

As explained in chapter 1, this dissertation has two major aims. The primary aim has been to discover whether there are significant differences in the metaphors produced in argumentative texts written by two groups of novice writers. One group consists of Norwegian university students of English and the other consists of British A-level students writing in their native language. The Norwegian students are L2 speakers of English while the British students are L1 speakers of English. In all, 20,267 words of Norwegian writing collected in the Norwegian component of the International Corpus of Learner English (NICLE) and 20,423 words of British English from the Louvain Corpus of Native English Essays (LOCNESS) were analyzed for linguistic metaphors, which were then categorized according to degree of conventionality and compared. The secondary aim of this dissertation has been to evaluate the efficacy of the Metaphor Identification Procedure (MIP) when used by an individual researcher to identify linguistic metaphors in the written production of L1 and L2 English language learners. The goal has been to produce an informed critique of MIP, based on a thorough and independent trial.

8.1.1 Primary aim: Norwegian L2 English versus British A-level English

A succinct answer to this study's primary question of whether significant differences exist between the written metaphorical production in argumentative texts written by Norwegian L2 students of English and by British A-level students is a qualified "yes" – qualified because although there are statistically significant differences between the use of metaphor by the two groups, what is arguably most striking is the degree of similarity displayed in the texts of the Norwegian and British writers. The texts mirror each other in important ways. Metaphor is ubiquitous in both sets of texts, with the bulk of linguistic metaphors in both corpora being *entrenched*, that is, either *dead* or *conventional* in terms of degree of conventionality. This means that both the NICLE and LOCNESS writers use highly conventional language. Moreover, the proportion of metaphorically used words varies considerably according to word class, and both corpora follow more or less the same rank order of word classes that favor metaphor. In both, prepositions are the one word class which is more often than not employed in a metaphorical sense; an average of 75% of the total numbers of prepositions are metaphorically related words.

That said, what is the main difference between the two corpora when it comes to metaphor? In brief, there is more metaphorical language overall in the Norwegian L2 English than in the British English. Specifically, 17.8% of the words in NICLE are metaphorical in use, as opposed to 16.8% in LOCNESS. This difference between the two corpora is statistically significant. That Norwegians produce more metaphors when writing in English than do native speakers may seem surprising on the surface, given the general perception that facility for the use of metaphor in a foreign language is difficult to acquire. Further exploration of the metaphorical language in the corpora reveals, however, that there are statistically more novel metaphors in NICLE than in LOCNESS. Specifically, 5% of the novel metaphors in NICLE are novel, while 3% of the metaphors in LOCNESS are entrenched and 3% novel. The observed frequency of novel metaphors in NICLE is nearly twice that in LOCNESS. The increased use of novel metaphor is a potential explanation for the greater use of metaphor overall. If novel metaphors are excluded from statistical calculations, the observed significant quantitative differences in metaphorical production vanish.¹³⁵ As a consequence, there appears to be more metaphorical language in NICLE because Norwegian writers produce more novel metaphors than their younger British peers.

The relatively greater number of novel metaphors in NICLE may, in turn, be attributed primarily to function words rather than lexical words, and more precisely, to prepositions. NICLE has almost three times more novel metaphorically used prepositions than LOCNESS, many of which have been produced due to a combination of conceptual and linguistic transfer from the L1. I suggest that a combination of a pedagogical approach to prepositions with an understanding of metaphor may better position foreign language students to successfully produce appropriate contextually-required prepositions. Indeed, advocacy for such an approach has been growing in recent years, at least in the field of cognitive linguistics. I would propose, however, that an indiscriminate approach to metaphor and prepositions is less helpful than a focused strategy. Concentration should be placed on those areas and/or prepositions that have been shown to be especially problematic for the particular group of language learners in question rather than on broad conceptual metaphors which underlie metaphorical mappings. Learner corpora, i.e. texts produced by learners, provide data to identify such problem areas. Although some of this data is likely to reveal only scattered, random difficulties, some patterns of improper preposition usage may nevertheless emerge. By way of illustration, for Norwegian learners of English, the present

¹³⁵ ($\chi^2 = 2.17$ (df=1), $p=0.1409$).

study indicates that specific focus should be placed upon, for example, the degree of correspondence between English *on* and Norwegian *på*, as well as how differences in the linguistic realizations of the space to time conceptual mapping are reflected in preposition use. Preposition choice is often motivated by metaphorical mappings rather than being merely random, and awareness of this fact together with consciousness of how metaphorical extensions match (or do not match) between languages may help foreign language learners produce appropriate prepositions. Teachers and students could thus have an alternative available to the traditional practices of presenting long lists of prepositions for memorization or of disregarding prepositions altogether.

Very few novel lexical metaphors were uncovered in my data, despite their traditional role as the focus of discussion about metaphor. They represent only 0.87% and 0.46% of the total number of words analyzed in NICLE and LOCNESS respectively. Furthermore, closer examination of the novel metaphors reveals that most novel metaphors in the two collections of texts are non-deliberate, meaning that they display no indication of intentional metaphoricity by the writers. Although this holds true for both corpora, NICLE has more non-deliberate metaphors due to the greater number of *inadvertent* metaphors resulting from substance or text level errors. This finding is intuitively satisfying, as one might expect more such lexical items to be produced in texts written by L2 writers of English than by native speakers. The motivation for many of these, in turn, may be attributed to transfer from Norwegian. LOCNESS, by contrast, has more non-deliberate metaphors which are *non-conventionalized* than does NICLE – probably as a result of topic choice (i.e. computers) than any other factor. In chapter 6, I argue that such non-deliberate metaphors which are non-conventionalized are, in effect, in a period of transition from novel to conventional. Internet searches prove that they are certainly not novel in the sense of extremely infrequent use, but standard ESL dictionaries do not yet provide evidence of their conventionality. The 95 novel lexical NICLE metaphors account for 0.82% of the approximately 11,500 total lexical words (both metaphorical and non-metaphorical) in that corpus, and exclusion of non-conventionalized metaphors as instantiations of novel metaphor would lower this percentage to 0.80%. Corresponding percentages for LOCNESS are 0.45% and 0.27% of the roughly 11,900 lexical words in that corpus. Instantiations of novel lexical metaphors in either corpus are, for all intents and purposes, negligible – an interesting finding considering the emphasis on novel metaphors in much of the previous literature about metaphor.

8.1.2 Secondary aim: Evaluation of MIP

My overall evaluation of MIP is positive. It provides useful guidelines by which to identify linguistic metaphors, even by an individual researcher working without the benefit of peer consultation. Crucially, MIP both impels and enables researchers – whether working alone or in collaboration – to make consistent, transparent and replicable decisions when identifying metaphors. In this way, MIP contributes to increased reliability. Perhaps equally importantly, the VU researchers and the Pragglez Group have so staunchly and convincingly argued for the importance of employing valid and reliable methods for identifying metaphor that they have, in essence, changed the game. In the future, I believe that metaphor researchers, regardless of whether they choose to employ MIP, will be expected to pay greater attention to the vital initial step of metaphor identification. In the field of corpus linguistics at the very least, it should become more difficult to professionally discuss metaphor without an explicit working definition of linguistic and conceptual metaphor and an overt description of the identification methods employed for any particular investigation. Without any such clear foundation, discussion of metaphor on anything more than a theoretical level runs the risk of being perceived as insubstantial.

Deviant language, such as that which novice writers in particular are apt to produce, presents no insurmountable obstacles to the application of MIP, although it does add further complexity that needs to be addressed. One such complication concerns the demarcation of lexical units, which may occasionally prove challenging due to learners' uses of creative phrasal verbs and polywords, together with unconventional use of spacing or hyphens in compounds. For the sake of analytical consistency, the MIP guidelines could be expanded in this area to accommodate the presence of such anomalous units. Perhaps a more controversial result of applying MIP to novice learner language, however, is the identification of ostensible misspellings as potentially metaphorical, a result following from a strict application of MIP. Analysis of ostensible errors in this way may be deemed overly pedantic – after all, the expanded MIPVU procedure includes a “Discarded for Metaphorical Analysis” category to catch those terms rejected for metaphorical analysis, so one solution could be to automatically place such incongruous lexical items in that category. Three objections to that solution immediately come to mind: 1) studies have shown that there is a seemingly infinite capacity for metaphorical interpretation, with the implication that even errors can be interpreted as metaphorical, 2) the line between error and intention is, at times, difficult to draw, and 3) MIP pays attention to even seemingly minute details, such that ostensible misspellings should also be covered by the procedure. The NICLE texts represent

advanced learner English; adjustments for anomalous language would presumably be even more necessary for the analysis of less advanced English.

Certain issues with respect to MIP and metaphor identification in L2 texts, where the implicit focus would seem to be on the anomalous language more ostensibly common in L2 writing than in L1 writing, were raised on page 82. Of particular concern was the determination of contextual and basic senses required for mutual comparison. The basic sense of a word, however, is independent of the text under investigation. The basic senses of most words are found in standard dictionaries and, with the exception of historical metaphors whose original basic senses have become archaic, are stable. By contrast, contextual meaning may be more difficult to ascertain, something which is true not only of infelicitous learner language. Indeed, one essential feature of the prototypical novel metaphor is its irreducible quality, such that it can theoretically be paraphrased in an infinite number of ways. Consequently, it may not be possible to definitively articulate the contextual sense and moreover, the ability to explicitly verbalize the contextual meaning for the purposes of comparison with the basic sense is not strictly necessary to determine whether a word is possibly metaphorical. Rather, recognition of the contextual sense as being different from the basic sense is sufficient to judge whether some relationship of comparison might exist.

My endorsement of the usefulness of MIP is nevertheless muted by a number of caveats about the procedure and its application. The most serious objection, also recognized by the MIP developers, is the time-consuming nature of the process, coupled with issues related to measurer performance. In short, MIP depends upon manual extraction of linguistic metaphors, requiring a separate analysis of each word in a text. Enormous concentration and time are required, especially when one is first learning to use the procedure. Initial misunderstandings of MIP may lead to apparently inconsistent decisions at first, which then have to be adjusted, if possible. The mind may stray: the wrong computer key may be struck when recording data. All this drastically limits the amount of text which may realistically be analyzed. Note, however, that there are alternatives to the application of MIP to large corpora to identify every metaphor. The procedure may be used in combination with others means of metaphor identification, such as Stefanowitsch's Metaphor Pattern Analysis or a combined manual/partially automated extraction of metaphor, to retain the advantages of consistency and validity while reducing the disadvantages due to MIP's time-consuming application process.

Furthermore, the VU researchers have demonstrated that employment of MIP by a collaborative group results in consistent and reliable identification of metaphor, thus affirming the findings of the Pragglejazz Group. Similarly, the present investigation shows that use of MIP by an individual researcher also produces consistent identification. Thus, consistency of metaphor identification within a single project may certainly be achieved through MIP, whether a researcher is working independently or in collaboration with others. An additional motivation for the development of a procedure like MIP, however, was to ensure consistency of metaphor identification across investigations, such that the results from one study could be contrasted with the results from another in the knowledge that the same phenomenon had been measured in both studies. In an ideal world, metaphorologists would simply read the MIP/Pragglejazz procedures and follow them, being careful to report any deviations from the standard MIP procedure. In practice, however, MIP is a more complicated procedure than it first appears. A full understanding of the procedure entails mastery of a great number of details, ranging from identification of lexical units to treatment of tropes such as simile and metonymy. In order to report any deviations, an individual analyst must first be cognizant of every detail and be aware of where their personal procedure deviates from MIP, something not necessarily self-evident. As a consequence, a system of metaphor identification which enables the valid comparison of results from independent investigations is still an elusive goal.

8.2 Retrospective considerations

There are additional areas that could have been examined given further resources and the wisdom of hindsight. One such area has already been mentioned in the concluding remarks of chapter 5, regarding the need for statistical calculations more specifically designed to analyze the contributions of the individual texts in the corpus to the overall results. Potentially more serious, however, are questions relating to the choice of appropriate reference corpus for NICLE. Here, the LOCNESS argumentative essays written by British A-level students were chosen as the comparative yardstick for the NICLE texts. This choice was made for several reasons, the most important of which was based on the previously-postulated concept of a scale of linguistic maturity which hypothesizes a natural hierarchy of proficiency built in the frame of LOCNESS and NICLE. The implication of such a cline is that texts of university L2 writers should correspond more closely to the texts of L1 upper-secondary students rather than to those of L1 university students. Added to this were the perceived advantages of testing MIP on novice British English rather than American English.

The reason for this is that MIP had been developed using British EFL dictionaries. Therefore, the analysis of American English texts would have added an extra complication. The LOCNESS A-level essays also, like the NICLE essays, comprise mainly argumentative essays with topics that are close, though not identical.

As discussed in chapter 2, two influential studies – one of academic English among Norwegian students and the other of business English among Norwegian adults – find an unexpectedly low level of English language competence. Comparison of the NICLE essays with the LOCNESS A-level essays, however, results in no such pessimistic conclusion. Norwegian university students specializing in English, at least when writing argumentative texts, demonstrate advanced proficiency. Extension of the possible failings in the foreign language teaching of the Norwegian education system to all areas of Norwegian L2 English is therefore unwarranted. In general, the NICLE texts prove more comprehensible and fluent than the corresponding LOCNESS A-level texts, with fewer spelling errors and little of the garbled text that characterizes many of the LOCNESS essays. With respect to use of metaphor, what is arguably most striking is the general similarity between the two corpora. Although the Norwegians produced more relatively novel metaphors than the LOCNESS A-level writers – most of which can be categorized as errors – it is important to keep in mind that such novel metaphors nonetheless constitute only 5% of the linguistic metaphors in NICLE. As a consequence, it may be that the postulated scale of linguistic maturity is inaccurate; the English language proficiency demonstrated in the NICLE university texts appears to be equal to or greater than that demonstrated in the A-levels in LOCNESS. Indeed, the creators of the LOCNESS corpus have themselves expressed strong doubts concerning the quality of the A-level essays.

It would therefore have been instructive to have included a corresponding number of English L1 university texts for comparison. As the majority of British university essays in LOCNESS are literary and historical expository essays, the better choice would then have been the American university essays which, like NICLE, are mostly argumentative. In addition, some of the American texts deal with topics identical – rather than similar – to those of the NICLE texts, so comparison to these texts would have eliminated different topics as a complicating factor. Here it may be recalled that topic choice was found to be the probable cause of differences between NICLE and LOCNESS relating to dead metaphors, bridge metaphors, frequency of metaphorical determiners, and non-conventionalized, non-deliberate metaphors. Time constraints precluded the application of MIP to a further set of texts.

8.3 General implications

The traditional distinction between dead, conventional and novel metaphors only goes so far in shedding light on differences in the production of linguistic metaphors among either groups or individuals. Here it has been shown that the vast majority of linguistic metaphors in both corpora are conventional, i.e. both transparent and codified in standard dictionaries. Moreover, there is significantly more metaphorical language in the Norwegian texts overall than in the British texts. Although the small proportion of metaphor which is novel has been explored here in depth, 95% NICLE metaphors are conventional. These Norwegian L2 learners of English thus produce as much metaphorical language – correctly – as their younger British contemporaries. Closer examination of this large group of conventional metaphors is needed to complete the comparison between the Norwegian and British students, in order to more fully investigate how these writers utilize metaphor to convey their message. A promising avenue of research in this regard would be the study of deliberate metaphor production.

To elaborate, the qualitative examination of novel metaphors presented here specifically reveals not only that most novel metaphors are not deliberate, but also that the majority of the novel deliberate lexical metaphors were produced by a single writer in NICLE (AG-0017.1). Given the low numbers of novel metaphors in the corpora, however, it stands to reason that deliberate metaphor is more often created by means of entrenched metaphors. NICLE essay AC-0001.1 provides examples offering food for thought in this regard. This text provides many of the instances of novel lexical and function MRWs which have been highlighted and discussed in separate sections of this dissertation, depending upon the type of linguistic metaphor they instantiate.¹³⁶ What has gone overlooked in the discussions which focus on novel metaphor, however, has been an examination of the ways in which writers such as this one deliberately use conventional metaphor. Consider the underlined items cited in (133) to (136), all of which are found in the NICLE AC-0001.1 text:

- (133) Though animated films are only imagination on screen, they represent one of the millions of products people have managed to create.
- (134) Though there are many discoveries in which we really do not need, the medical evolution has become the largest piece in the puzzle.
- (135) Therefore the circle of life spins once again: it seems, as if we cannot stop, we demand to have all of it and then some.
- (136) Remember as a child when you used to lie down on the lawn, looking up in the sky, and imagine what each cloud represented? Where you happy then? I was, but it has been along while since I took time to drift away into the world of dreaming.

¹³⁶ These instantiations include (44), (61), (70), (84), (96), (97), (98), (113), and (118).

All four instances bear the marks of deliberate use of metaphor, but have been swallowed in the vast category of entrenched metaphors. Sentences (133) and (134) contain defective $A=B$ metaphors, whereas both (135) and (136) contain metaphors which are clearly marked by specific domain topic markers. The prepositional phrase *of life* in (135), serving as a post-modifier, alerts the reader to the fact that this is a metaphorical circle rather than a physical circle. Similarly, the adverbial phrase *into the world of dreaming* in (136) reminds us that the reference here is to metaphorical drifting, something juxtaposed with the literal drifting of clouds alluded to in the immediately preceding sentence. This employment of deliberate – yet conventional – metaphor is arguably more successful than the student’s use of novel metaphor in terms of the overall impression afforded by the text. Investigation of deliberate metaphor alone, divorced from novel metaphor, is an avenue of investigation that would be worth pursuing, having as it does the potential to illuminate aspects of metaphorical production that the traditional categorization of conventionality leaves in shadow. Novel metaphor, hitherto viewed as the archetypical metaphor, may have to yield to deliberate metaphor as the prototype.

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The word clouds on pages 1, 77, and 133 were created from my text at the *Wordle* website: <http://www.wordle.net>.

Appendix

Table 33: Accessed texts and word count per text

NICLE Text ID	Word Count	LOCNESS Text ID	Word Count
ICLE-NO-AC-0001.1	767	ICLE-ALEV-0001.6	440
ICLE-NO-AC-0009.1	727	ICLE-ALEV-0002.6	604
ICLE-NO-AC-0011.1	593	ICLE-ALEV-0003.6	259
ICLE-NO-AC-0013.1	698	ICLE-ALEV-0004.6	543
ICLE-NO-AC-0014.1	667	ICLE-ALEV-0005.6	456
ICLE-NO-AC-0021.1	532	ICLE-ALEV-0006.6	556
ICLE-NO-AG-0006.1	575	ICLE-ALEV-0007.6	306
ICLE-NO-AG-0007.1	606	ICLE-ALEV-0008.6	481
ICLE-NO-AG-0009.1	695	ICLE-ALEV-0009.6	309
ICLE-NO-AG-0011.1	523	ICLE-ALEV-0010.6	699
ICLE-NO-AG-0012.1	626	ICLE-ALEV-0001.8	179
ICLE-NO-AG-0016.1	584	ICLE-ALEV-0002.8	272
ICLE-NO-AG-0017.1	1779	ICLE-ALEV-0003.8	493
ICLE-NO-AG-0019.1	1358	ICLE-ALEV-0004.8	910
ICLE-NO-BE-0002.1	578	ICLE-ALEV-0005.8	540
ICLE-NO-BE-0009.1	845	ICLE-ALEV-0006.8	618
ICLE-NO-BE-0010.1	529	ICLE-ALEV-0007.8	530
ICLE-NO-BE-0015.1	911	ICLE-ALEV-0008.8	506
ICLE-NO-BE-0017.1	659	ICLE-ALEV-0009.8	352
ICLE-NO-BE-0019.1	502	ICLE-ALEV-0010.8	582
ICLE-NO-BE-0022.1	497	ICLE-ALEV-0011.8	626
ICLE-NO-BU-0002.1	560	ICLE-ALEV-0012.8	358
ICLE-NO-BU-0003.1	757	ICLE-ALEV-0013.8	497
ICLE-NO-HB-0001.1	521	ICLE-ALEV-0014.8	922
ICLE-NO-HB-0002.1	577	ICLE-ALEV-0015.8	273
ICLE-NO-HE-0005.1	743	ICLE-ALEV-0016.8	628
ICLE-NO-HO-0020.1	547	ICLE-ALEV-0017.8	518
ICLE-NO-HO-0023.1	765	ICLE-ALEV-0018.8	782
ICLE-NO-HO-0029.1	745	ICLE-ALEV-0019.8	349
		ICLE-ALEV-0020.8	370
		ICLE-ALEV-0021.8	513
		ICLE-ALEV-0022.8	364
		ICLE-ALEV-0023.8	443
		ICLE-ALEV-0024.8	399
		ICLE-ALEV-0025.8	469
		ICLE-ALEV-0026.8	387
		ICLE-ALEV-0027.8	493
		ICLE-ALEV-0028.8	474
		ICLE-ALEV-0029.8	755
		ICLE-ALEV-0030.8	758

Table 34: CLAWS POS tags and description (Fletcher 2003), divided into eight major word classes

ADJECTIVE	
AJ0	adjective (general or positive) e.g. <i>good, old</i>
AJC	comparative adjective e.g. <i>better, older</i>
AJS	superlative adjective, e.g. <i>best, oldest</i>
ADVERB	
AV0	adverb (general, not sub-classified as AVP or AVQ), e.g. <i>often, well, longer, furthest</i> .
AVP	adverb particle, e.g. <i>up, off, out</i> .
AVQ	<i>wh</i> -adverb, e.g. <i>when, how, why</i> , whether the word is used interrogatively or to introduce a relative clause.
CONJUNCTION	
CJC	coordinating conjunction, e.g. <i>and, or, but</i> .
CJS	subordinating conjunction, e.g. <i>although, when</i> .
CJT	the subordinating conjunction <i>that</i> , when introducing a relative clause, as in <i>the day that follows Christmas</i> .
DETERMINER	
AT0	article, e.g. <i>the, a, an, no</i> .
DPS	possessive determiner form, e.g. <i>your, their, his</i> .
DT0	general determiner: a determiner which is not a DTQ e.g. <i>this</i> both in <i>This is my house</i> and <i>This house is mine</i> .
DTQ	<i>wh</i> -determiner, e.g. <i>which, what, whose, which</i> , whether used interrogatively or to introduce a relative clause.
NOUN	
NN0	common noun, neutral for number, e.g. <i>aircraft, data, committee</i> .
NN1	singular common noun, e.g. <i>pencil, goose, time, revelation</i> .
NN2	plural common noun, e.g. <i>pencils, geese, times, revelations</i> .
NP0	proper noun, e.g. <i>London, Michael, Mars, IBM</i> .
PREPOSITION	
PRF	the preposition <i>of</i> .
PRP	preposition, other than <i>of</i> , e.g. <i>about, at, in, on behalf of, with</i> . Prepositional phrases like <i>on behalf of</i> or <i>in spite of</i> treated as single words.
VERB	
VBB	the present tense forms of the verb <i>be</i> , except for <i>is</i> or <i>'s</i> : <i>am, are 'm, 're, be</i> (subjunctive or imperative), <i>ai</i> (as in <i>ain't</i>).
VBD	the past tense forms of the verb <i>be</i> : <i>was, were</i> .
VBG	<i>-ing</i> form of the verb <i>be</i> : <i>being</i> .
VBI	the infinitive form of the verb <i>be</i> : <i>be</i> .
VBN	the past participle form of the verb <i>be</i> : <i>been</i>
VBZ	the <i>-s</i> form of the verb <i>be</i> : <i>is, 's</i> .
VDB	the finite base form of the verb <i>do</i> : <i>do</i> .
VDD	the past tense form of the verb <i>do</i> : <i>did</i> .
VDG	the <i>-ing</i> form of the verb <i>do</i> : <i>doing</i> .
VDI	the infinitive form of the verb <i>do</i> : <i>do</i> .
VDN	the past participle form of the verb <i>do</i> : <i>done</i> .
VDZ	the <i>-s</i> form of the verb <i>do</i> : <i>does</i> .
VHB	the finite base form of the verb <i>have</i> : <i>have, 've</i> .
VHD	the past tense form of the verb <i>have</i> : <i>had, 'd</i> .
VHG	the <i>-ing</i> form of the verb <i>have</i> : <i>having</i> .
VHI	the infinitive form of the verb <i>have</i> : <i>have</i> .
VHN	the past participle form of the verb <i>have</i> : <i>had</i> .
VHZ	the <i>-s</i> form of the verb <i>have</i> : <i>has, 's</i> .
VM0	modal auxiliary verb, e.g. <i>can, could, will, 'll, 'd, wo</i> (as in <i>won't</i>)
VVB	the finite base form of lexical verbs, e.g. <i>forget, send, live, return</i> . This tag is used for

	imperatives and the present subjunctive forms, but not for the infinitive (VVI).
VVD	the past tense form of lexical verbs, e.g. <i>forgot, sent, lived, returned</i> .
VVG	the <i>-ing</i> form of lexical verbs, e.g. <i>forgetting, sending, living, returning</i> .
VVI	the infinitive form of lexical verbs, e.g. <i>forget, send, live, return</i> .
VVN	the past participle form of lexical verbs, e.g. <i>forgotten, sent, lived, returned</i> .
VVZ	the <i>-s</i> form of lexical verbs, e.g. <i>forgets, sends, lives, returns</i> .
REST	
CRD	cardinal numeral, e.g. <i>one, 3, fifty-five, 6609</i> .
ORD	ordinal numeral, e.g. <i>first, sixth, 77th, next, last</i> .
PNI	indefinite pronoun, e.g. <i>none, everything, one (pronoun), nobody</i> .
PNP	personal pronoun, e.g. <i>I, you, them, ours</i> . possessive pronouns such as <i>ours</i> and <i>theirs</i> are included in this category.
PNQ	<i>wh</i> -pronoun, e.g. <i>who, whoever, whom</i> .
PNX	reflexive pronoun, e.g. <i>myself, yourself, itself, ourselves</i> .
POS	the possessive or genitive marker 's or ', tagged as a distinct word.
EX0	existential there, the word there appearing in the constructions there is..., there are
ITJ	interjection or other isolate, e.g. <i>oh, yes, mhm, wow</i> .
TO0	the infinitive marker <i>to</i> .
UNC	unclassified items which are not appropriately classified as items of the English lexicon.
XX0	the negative particle <i>not</i> or <i>n't</i> .
ZZ0	alphabetical symbols, e.g. <i>A, a, B, b, c, d</i> .

Table 35: Detailed overview of identified NICLE compounds

	Standard spaced compounds	Split	Mistakes in standard compounds			Non-standard compounds			Total (Standard/ Other)
			Lack of hyphen	Fusion	Hyphen overinclusion	Fusion	Hyphen overinclusion	Combined hyphen and split	
Type	16	12	7	1	6	3	6	3	54 (16/38)
Token	20	13	8	1	7	3	8	3	63 (20/43)
1	common sense (3)	over working	long lost	videogames	cell-phones (2)	datagames	everyday-life (2)	“robot”- worlds	
2	washing machine (2)	to day	grown ups (2)		sub-cultures	dataprogramming	drug-abusers (2)	TV -programme	
3	cell phone (2)	every thing	time saving		role-plays	dreamvisions	sea-creatures	computer- party	
4	living room	a go	role play		fairy-tales		TV-series		
5	computer games	now a days	well known		Human-beings		chat-programs		
6	sport centres	on to	clear out		post-industrial		computer-man		
7	shopping malls	what ever	pre menopausal						
8	test tubes	a hold (2)							
9	elementary school	web sites							
10	video games	under water							
11	paper route	work force							
12	side effect	fairy tales							
13	board games								
14	hiding places								
15	snail mail								
16	talk show								

Table 36: Detailed overview of identified LOCNESS compounds

	Standard spaced compounds	Split	Mistakes in standard compounds			Non-standard compounds			Total (Standard/ Other)
			Lack of hyphen	Fusion	Hyphen overinclusion	Fusion	Hyphen overinclusion	Combined hyphen and split	
Type	20	20	9	3	7	0	3	0	62 (20/42)
Token	61	25	10	3	20	0	4	0	123 (61/62)

1	in vitro fertilization (17)	type writer	old fashioned	invitro fertilisation	side-effects		wheel-chair	
2	test tube (9)	back bone	set up (noun)	testtube	hum-drum		'super-race'	
3	computer games (6)	care free	modern day	Teststube baby	un-inventive		kitchen-knife (2)	
4	control room	tax payer	time saving		post-menopausal (14)			
5	in vitro (5)	out side	long term (adj)		socio-political			
6	primary school (4)	in to (2)	mother to be (2)		common-place			
7	video games (3)	well being	[an] eight-year old [child]		science-fiction			
8	age limit (2)	decision making	out side					
9	machine gun (2)	on to	clear out					
10	quality of life (2)	fore front (2)						
11	times table	mis management						
12	World Wide Web	in herited						
13	couch potatos	far fetched						
14	filing cabinets	in crease						
15	word processing	make up						
16	donkey work	nut cases						
17	body clock	guide lines						
18	cash crops	test tube baby (4)						
19	side effect	over protective						
20	sperm count	pre menopausal						

Table 37: NICLE novel lexical metaphors, divided by type. ID prefix ICLE-NO

DELIBERATE			
Multiple, serial, and/or extended metaphors			
1	contamination	AG-0017.1	I am looking for a dream. Is it possible to retrieve it in this sea of <u>contamination</u> ?
2	drops	AG-0017.1	Is it possible to extract its pure and golden <u>drops</u> from all that mucky <u>grey</u> ?
3	grey	AG-0017.1	Is it possible to extract its pure and golden drops from all that mucky <u>grey</u> ?
4	crumpled	AG-0017.1	Has too much knowledge perchance dissolved it and left but the dull and naked facts, crumpled and shivering in the chill gust of science?
5	gust	AG-0017.1	Has too much knowledge perchance dissolved it and left but the dull and naked facts, crumpled and shivering in the chill gust of science?
6	wells	AG-0017.1	Could one not argue that dreamers have found <u>wells</u> for their thirsty minds in every desolate desert throughout history, and that the true romantic is the one to find hope and beauty everywhere?
7	desert	AG-0017.1	Could one not argue that dreamers have found wells for their thirsty minds in every desolate desert throughout history, and that the true romantic is the one to find hope and beauty everywhere?
8	shivering	AG-0017.1	Has too much knowledge perchance dissolved it and left but the dull and naked facts, crumpled and <u>shivering</u> in the chill gust of science?
9	dwellings	AG-0017.1	O, how I wish they would leave those hidden temples be; leave those blind sea-creatures to their bottomless <u>dwellings</u> .
10	snuff	AG-0017.1	Not a creature to make wishes to, but rather one to <u>snuff</u> with ether and pin to a box or cut open?
11	lying	AG-0017.1	There is a civilised cruelty in the world of science, in the cold, calculated interest of the probing eyes and shining scalpels, the childhood dream <u>lying</u> helpless upon a bed of sterile white.
12	helpless	AG-0017.1	There is a civilised cruelty in the world of science, in the cold, calculated interest of the probing eyes and shining scalpels, the childhood dream lying <u>helpless</u> upon a bed of sterile white.
13	being	AG-0017.1	I commenced my science studies because I wanted to pursue the unknown. Not to dissect it and wrench the secrets from it, but to catch a glimpse of its inner <u>being</u> .
14	seed	AG-0017.1	Can one be an educated person and still retain within oneself the sacred <u>seed</u> of mystery?
15	naked	AG-0017.1	Has too much knowledge perchance dissolved it and left but the dull and <u>naked</u> facts, crumpled and shivering in the chill gust of science?
16	fled	AG-0017.1	Through its nature, it would seem that the dream has <u>fled</u> me and left me with more questions than answers.
17	blossom	BE-0017.1	If we move away from the technological field, towards creations made solely by human beings, we approach the field of art. This field is not declining over the years, but quite on the contrary it is in full <u>blossom</u> .

Defective A=B metaphors			
18	enemies	AG-0017.1	Do dreams and modern technology and industrialisation really have to be opposites and fierce <u>enemies</u> ?
19	angle	BE-0009.1	An <u>angle</u> of incidence, ways of getting our individuality back.
20	creativity	AG-0011.1	Human-beings are <u>creativity</u> themselves.
Explicitly signalled metaphors			
21	busy	BU-0003.1	And he found that it was because of all the " <u>busy</u> " things he had to do.
22	made	HO-0023.1	We are " <u>made</u> " to do that.
23	film	HO-0023.1	In other words we make our own " <u>film</u> " of the book, and we imagine how each character is suppose to look like.
NON-DELIBERATE: INADVERTENT			
Text level errors: Grammatical system			
24	essences	AC-0001.1	Our modern world is becoming a place where stress, health problems caused by over working, and little time are the main <u>essences</u> of our lives.
25	outdistance	BE-0009.1	Ways of <u>outdistance</u> your self from it all.
26	contents	BE-0010.1	The reasons for and <u>contents</u> of these reveries have been changed throughout history, but they have always been with us, and are highly unlikely to ever abandon us.
27	awake	BE-0010.1	Nevertheless, imaginatory work is normally done by the means of surplus energy, and if your mind is forced to work too hard during the most of your <u>awake</u> hours, there will be little energy left for dreaming.
28	prior	HO-0020.1	They prior other things and forget how important it is to be able to dream and imagine.
29	stressed	BE-0009.1	In contrast to the <u>stressed</u> and chaotic world that is surrounding us, there is no doubt that the possibility of being able to let your thoughts live their own life for some stolen seconds during our busy everyday life, are extremely appreciated to us all.
Text level errors: Lexical system			
Formal errors of lexis / Calques			
30	dreamt away	AG-0007.1	In the old times they had no televisions or computer games to entertain them in the evenings, and so they used their imagination to make new games, to tell each other stories, -or they simply <u>dreamt away</u> .
31	dreaming away	AG-0007.1	Some people will always have hard lives and try to "escape" from them by dreaming, and most people will meet problems in life and handle them by <u>dreaming away</u> .
32	dream away	HO-0029.1	People are the same, and this is a need we have, to <u>dream ourselves away</u> , or to be creative.
33	hanging along	BU-0003.1	But is it a great success? The world is going faster and faster, and more and more people have trouble <u>hanging along</u> .
34	life-pattern	BU-0002.1	I mentioned earlier that I don't think that the <u>life-pattern</u> of people today gives less room for dreams and imaginations.
35	live	BE-0009.1	In contrast to the stressed and chaotic world that is surrounding us, there is no doubt that the possibility of being able to let your thoughts <u>live</u> their own life for

			some stolen seconds during our busy everyday life, are extremely appreciated to us all.
36	sit with	AC-0011.1	With so much information and knowledge we now <u>sit</u> with, the possibilities of achieving new goals and accomplishing our dreams are even greater.
37	step out of	AC-0001.1	We have built a chaotic and pressured environment by ourselves, and the only way to <u>step out of</u> this pattern is by changing our own views.
38	found	BE-0002.1	Some major reasons to this are the development of science technology and the industrialisation which have <u>found</u> place with swift speed during the last decades in our society.
39	put	AG-0011.1	We call our world a modern one because we have invented and <u>put</u> to life things that perhaps wasn't even thought about in old times.
40	put	AG-0011.1	The way of life which is dominated by science technology and industrialisation was, and still is, created by people who dream and who uses their imagination to <u>put</u> these dreams to life.
41	close up	ICLE-NO-HO-0023.1	By this I mean that the books can be so <u>close up</u> to the real world, or they can contain elements which make us understand that this would be unlikely to happen in "real life".
Formal errors of lexis / Formal misselection / Totally deceptive cognates			
42	port	HO-0023.1	It is in fact the same thing with films/videos as with books, we tend to use them as a <u>port</u> to an imaginary world.
43	spectre	AC-0001.1	It is in this huge <u>spectre</u> of merchandise and inventions we find ourselves stuck with things that are not as important as the people that surround us.
Formal errors of lexis / Formal misselection / Partially deceptive cognates			
44	stand	AC-0013.1	And I believe that we will continue to encourage the use of creative thinking and that it will last through time, the methods might change but the message will <u>stand</u> .
45	deliver	HO-0029.1	When we were to <u>deliver</u> this essay, we were asked to please send it as an attachment to the teacher.
46	fix	BU-0002.1	They are called "Nintendo" and "Play Station" and can easily be attached to the TV, so the children can fix it themselves when they want to play.
47	bringing	HO-0029.1	Instead of <u>bringing</u> us apart, this technology has brought us together.
48	served	BE-0010.1	One can also argue that if you are served too much of other people's dreams and visions, i.g. through television and advertising, the natural wish, that is within most people, too create your own reveries might be diminished.
49	drowned	AC-0001.1	As the evolution developed through centuries, our modern society has now become dominated and <u>drowned</u> by science technology and industrialization
50	sharper	AC-0014.1	You feel the air turning colder and <u>sharper</u> as summer changes to fall.
Formal errors of lexis / Formal misselection / Synforms			
51	loose	AG-0007.1	(It has probably been like this though for all ages, - that grownups <u>loose</u> their imagination.)

52	loose	BE-0009.1	Not everyone can handle this speed, somehow they start to <u>loose</u> themselves in this process. I believe that imagination and dreaming are resources to achieve better control of your self.
53	noticeable	BE-0019.1	It is <u>noticeable</u> to underline that we might have different interpretation of what dreaming and imagination is, and how it is expressed or made use of.
54	maintain	AC-0021.1	It all comes down to the free will of human beings if or if not they think it is still possible to <u>maintain</u> their imagination and dreams in this world of science technology and industrialization.
Semantic errors of lexis / Confusion of sense relations / Interlingual			
55	liberate	HO-0029.1	All this technology and industrialisation are supposed to be tools for us. They are supposed to help us, not make our lives more complicated. They are supposed to <u>liberate</u> time, so that we have more time to do what we wish to do.
56	put	AG-0011.1	And what meaning do we <u>put</u> into the words of dreaming and imagination?
57	place	AG-0007.1	Adults worked full days and evenings in the old days too, but they could not <u>place</u> their children in front of the television or video while doing it.
58	remove	AG-0017.1	However, it might also be harmful, such as analysing a poem might <u>remove</u> the spontaneous magic and thus ruin the experience.
59	erase	AC-0001.1	We will still be here in a thousand years, if we do not <u>erase</u> ourselves that is.
60	means	AC-0021.1	Another thing I was thinking about is the washing machine and all other supplies that make things easier and faster to do in our homes. Now I know some are thinking we are losing a lot of quality time doing these things manually. But I mean we are living in a time where we do have access to all these <u>means</u> so why not use them and spend all the free time you save on something nice, that enriches your life.
61	motion	BE-0009.1	The Industrial Revolutions in the western part of the world started a <u>motion</u> that was about to create everlasting cumulative effects all over the earth.
62	in front of	BE-0009.1	People chose artificial stimulus <u>in front of</u> creating the experience themselves.
63	execute	BE-0017.1	As much as a machine can <u>execute</u> logical thinking and problem solving, the skill of rational thinking remains solely a human trait.
64	seek	AG-0012.1	It seems like young people today automatically <u>seek</u> for electronic.
65	seek	BE-0019.1	In the same way, more and more people <u>seek</u> into new religions, such as New Age.
Semantic errors of lexis / Confusion of sense relations / Intralingual (NNS only)			
66	abandon	BE-0010.1	The reasons for and contents of these reveries have been changed throughout history, but they have always been with us, and are highly unlikely to ever <u>abandon</u> us.
67	guilty	BU-0003.1	Things we look upon as very necessary, such as e-mail and mobile phones are actually <u>guilty</u> of doing our lives

			more busy.
68	spread	AC-0011.1	Still the expansion of technology is not completely world <u>spread</u> .
69	upcoming	AC-0001.1	We are in a phase where we can determine whether or not to take part in the <u>upcoming</u> knowledge ahead.
70	jeopardy	AC-0013.1	Take for example: New Years Eve 2000, how everyone was worried about the computers and their technology wouldn't manage the transition, important medical equipment was in <u>jeopardy</u> of not working which could have had some serious consequences on people's lives.
71	opened	BE-0010.1	As a result all these new discoveries have also <u>opened</u> our vision for new possibilities, both social and scientific.
Semantic errors of lexis / Confusion of sense relations / Intralingual (NNS & NS)			
72	discovered	AC-0009.1	All the way back to when the electricity, telephone, TV and of other different things were <u>discovered</u> .
73	capability	AG-0011.1	We are told that reading books increases the <u>capability</u> of imagination.
74	disappeared	AG-0019.1	As a child I <u>disappeared</u> in books and role play with friend through the world of Barbie and Ken.
Semantic errors of lexis / Collocation / Semantically determined word selection			
75	saw	AG-0011.1	The author Jules Verne already wrote about travelling under water long before the first submarine <u>saw</u> the day.
76	seen	AC-0013.1	One invention has made it possible for another to have <u>seen</u> the light.
Semantic errors of lexis / Collocation / Statistically weighted preferences			
77	big	BU-0002.1	Dreams and imaginations are perhaps not the biggest part of the grown-up world, but today's children still use their fantasy to a <u>big</u> extent.
Semantic errors of lexis / Collocation / arbitrary combinations			
78	do	BU-0003.1	And he concluded with the fact that all the things invented to <u>do</u> our lives easier and more comfortable seems to have made them more complicated.
79	doing	BU-0003.1	Things we look upon as very necessary, such as e-mail and mobile phones are actually guilty of <u>doing</u> our lives more busy.
80	get	HO-0020.1	Children born today will <u>get</u> a completely different adolescence than children born in the early and mid 20th century.
81	made	BU-0002.1	Being an adult I have experienced the development in our society during the latest years, and I have <u>made</u> some reflections upon that.
82	make	AC-0013.1	Without the ability to imagine these things we would not get very far, and an extension of our imagination is the dreams that we <u>make</u> .
Substance level errors			
Mechanical misspellings / Oversight			
83	exiting	BE-0009.1	And of course television was <u>exiting</u> and quite sensational.
Misspellings proper / Mispronunciation			
84	literary	HO-0023.1	We are able to <u>literary</u> walk into an imaginary one and stay here as long as we want to.

Misspelling proper / Confusibles / Phonetic near-misses			
85	dear	HO-0023.1	I <u>dear</u> to say that it depends on your mood what kind of film/video you choose to see.
86	evolves	BE-0017.1	Hence, there are a large amount of activities a computer/machine could never take part in, and from this an important point <u>evolves</u> :
87	wonder off	AG-0011.1	Letting the mind wonder off on it's own can work as therapy.
88	embrace	AC-0014.1	Even though technology and science will continue to <u>embrace</u> bigger and bigger parts of our lives, there will still be plenty of room for dreams and imagination.
89	applies	BU-0002.1	This cartoon series really <u>applies</u> to the children's fantasy.
Misspelling proper / Confusibles / Homophones			
90	brake	BU-0003.1	This world is moving to fast, I need a <u>brake</u> . Stop the world; I want to get of it!
NON-DELIBERATE: NON-CONVENTIONALIZED			
91	abilities	AC-0011.1	The computers <u>abilities</u> are expanding just as I am writing this essay and for that we can thank the ones who had a dream of making the computer to something more than just a typing machine.
92	consider	AG-0017.1	Thomas Hardy's poem "The Darkling Thrush" seems to <u>consider</u> the loss of romance.
93	wielding	BE-0002.1	In our society I think the opportunity to escape from real life and spend some time with your own dreams and thoughts is a necessity, because <u>wielding</u> your imagination do not cost you anything, which differs greatly from the materialistic world where we have to pay for almost everything.
ATTRIBUTION			
94	dusty	AG-0006.1	There are lots of small and <u>dusty</u> reasons for this; drinking coffee with my friends, the surprises of everyday life, and the feeling of accomplishment when I execute a job well.
95	high	AG-0006.1	One woman might dream of marrying into the purple, be famous and have her face in the newspaper everyday, but her sister might choose to be a girl of plain living and <u>high</u> thinking.

Table 38: LOCNESS novel metaphors, divided by type. ID prefix ICLE-ALEV

DELIBERATE			
Multiple, serial and/or extended metaphors			
1	offloaded	0006.6	Therefore, I conclude that although the invention and development of the human computer has kept the brain on, full-time, it use has <u>offloaded</u> it, to a certain extent, into redundancy.
Defective A=B metaphors			
2	bone	0009.6	The back <u>bone</u> to a computer is its program, it can not break this program<?>, it is for this reason that many people such as Roger Penrose, (Oxford Physic Professor) thinks that computers can never take the place of man.
3	medecine	0020.8	Genetic Manipulation is the medicine of the future.
Explicitly signalled metaphors			
4	thinking	0009.6	So if we assume that the computer will only ever really be machanical in there operation and ` <u>thinking</u> ' then they will only ever do the donkey work for example calculators in schools; And even if they do do the metal arithmetic for the children
5	thinking	0002.6	Research in artificial intelligence, the attempt to produce a " <u>thinking</u> " computer, has grown massively in the last decade, yet we are little closer to producing any true artificial life for it.
6	alive	0002.6	If he cannot make any distinction, then that program can be said to be ` <u>alive</u> '.
NON-DELIBERATE: INADVERTENT			
Text level errors: Grammatical system			
7	loses	0006.6	However in response to this one might say that the computer is an invention of the human brain's imagination at a very high level, and indeed its development. However I believe its use, confined to its programme, <u>loses</u> the element of imagination.
8	gaining	0008.6	They should be out enjoying themselves and <u>gaining</u> experiences for themselves instead of reading about them on a flat screen.
Text level errors: Lexical system			
Formal errors of lexis / Formal misselection / Synforms			
9	noticeable	0016.8	Several legal cases have already been fought, one of the more <u>noticeable</u> ones the sueing of a tobacco company by someone who believed he contracted lung cancer before government health warnings.
10	maintain	0004.6	The human brain is constantly in need of being challenged to <u>maintain</u> itself;
Semantic errors of lexis / Confusion of sense relations / Intralingual (NNS & NS)			
11	discovered	0003.6	The human brain is in no way made redundant by the invention of the computer and I think that it will be a long time before the technology is <u>discovered</u> to make a electronic machine which will compete with the brain to achieve one of its functions never mind all of which the

			human brain is capable of doing.
12	capacity	0013.8	Genetic manipulations, like nuclear power, has the <u>capacity</u> for huge disaster and much destruction if used unwisely, but the ability to improve life for millions of people.
12	ability	0013.8	Genetic manipulations, like nuclear power, has the capacity for huge disaster and much destruction if used unwisely, but the <u>ability</u> to improve life for millions of people.
13	insuring	0015.8	Governments should insure that money is invested not only in the research of genetic engineering, but also in <u>insuring</u> that the results of this research are kept safe.
15	insure	0015.8	Governments should <u>insure</u> that money is invested not only in the research of genetic engineering, but also in insuring that the results of this research are kept safe.
Semantic errors of lexis / Confusion of sense relations / Intralingual (NS only)			
16	allow	0003.8	Through no fault of her own she could have a blocked fallopian tube causing her to be unable to <u>allow</u> eggs down to the womb and it is only fair in helping her to have children.
17	leads	0014.8	Genetic experimentation with animals <u>leads</u> the question into a wholly different area of ethics.
18	brief	0009.6	Since its conception, the computers <u>brief</u> has been the make the work of man easier, no to do if for him.
19	inpregnating	0018.8	What would happen if the cancer containing influenza escaped, the scientist would have to shoulder the moral responsibility for this by doing something as inherently silly as <u>inpregnating</u> a infectious virus with a cancer causing drug.
20	pregnate	0024.8	Genetic manipulation of viruses could mean that they could be used to carry usefull genetic information round the body and <u>pregnate</u> it into other cells.
21	displays	0006.6	This point of view <u>displays</u> the computer as a substitute for a human brain which, once skilled in its use, is a major problem in its use by many people.
22	work	0028.8	Modern Scientists have much more information, and a greater technology to <u>work</u> that information into better use.
Semantic errors of lexis / Collocation / Statistically weighted preferences			
23	doom	0008.6	However, this is killing the imagination of children and they spend hours sat at a keyboard tapping away in the <u>doom</u> and gloom of the house.
Semantic errors of lexis / Collocation / Arbitrary combinations			
24	do	0027.8	He should not sell it to the oil companies even if they were the highest bider as they would probably hide it as it would <u>do</u> them out of business.
Substance level errors			
Mechanical misspellings / Oversight			
25	see	0010.8	However the <u>see</u> of a foetus may be discovered after the child has been concieved and therefore if it is the 'wrong' sex, the foetus may be aborted.
26	expert	0021.8	Can we expert a scientist to bear this additional burden for the whole world?
27	clear out	0030.8	In conclusion, I feel that this matter is not <u>clear out</u>

28	binder	0027.8	However if the scientist does get copyright and he then sells it to the highest <u>binder</u> he must also think about the greater good.
29	metal	0009.6	So if we assume that the computer will only ever really be mechanical in there operation and `thinking' then they will only ever do the donkey work for example calculators in schools; And even if they do do the <u>metal</u> arithmetic for the children Thus the children losing the ability to do it for themselves, it this morrally wronge, afterall it is a progression, they will never need that skill again.
30	banded	0009.6	Many people fear that the children of today, math sudent especially are turning into `button pushers', and question the morrality of this.. some school have even banded the use of calculators.
Misspelling proper / Confusibles / Phonetic near-misses			
31	companion	0006.6	In the world today children are taught about things which have only come to light as a result of the technological revolution, namely the computer. For example the nature of the sun's surface has been made available by computer technology. This provides simple additional information not requiring the brain to think much, unless one is able to think around it such as in companion to other planet's surfaces.
32	facility	0006.6	Therefore, computers can have an adverse effect on the human brain's greatest <u>facility</u> , its imagination.
NON-DELIBERATE: NON-CONVENTIONALIZED			
33	need	0001.6	People claim that computer games don't <u>need</u> a brain to be played.
34	need	0001.6	But then there are computer games that don't <u>need</u> any brainpower whatsoever, just keeping your finger on a button.
35	solve	0001.6	Despite computers saving time, they do everything for you at the touch of a button, <u>solve</u> the most difficult sums, check for spelling errors on essays, letters and other documents and much more.
36	communiante	0001.6	Computers can <u>communiante</u> with each other, fly planes, build cars, they may even be running the country next.
37	fly	0001.6	Computers can communiante with each other, <u>fly</u> planes, build cars, they may even be running the country next.
38	build	0001.6	Computers can communiante with each other, fly planes, <u>build</u> cars, they may even be running the country next.
39	running	0001.6	Computers can communiante with each other, fly planes, build cars, they may even be <u>running</u> the country next.
40	skilled	0006.6	This point of view displays the computer as a substitute for a human brain which, once <u>skilled</u> in its use, is a major problem in its use by many people.
41	build	0002.6	Our current technology could not fool any tester for more than a few seconds, but as computers grow more powerful, and new techniques which <u>build</u> computers based on the `neural net' systems which our brains use become more feasible, it is possible then that life might be created according to this definition.
42	work	0004.6	As the computers are: more efficient than humans, do not require payment for their <u>work</u> , are less temperamental than

			humans and will never have a day off because it is ill, it seems mankind is faced with a great problem.
43	show	0004.6	No matter how much artificial intelligence a computer may be able to <u>show</u> , it still has to rely on the human brain to programme it and to put it into operation.
44	deal	0005.6	Computers cannot <u>deal</u> with human beings, have no capacity for coping with anything outside their expected situations, and cannot adapt to new situations using judgement.
45	discoveries	0006.6	On the other hand the <u>discoveries</u> made by computers have stimulated the human brain to further fields of thought.
46	instructed	0006.6	Indeed computers are simply the result of what humans know and thus have <u>instructed</u> the computer to do.
47	teach	0007.6	As for making the human brain redundant computers can help to improve learning skills, they can <u>teach</u> , test and improve our linguistic skills.
48	offer	0008.6	For the youth of today computers <u>offer</u> links around the world and millions of facts and figures.
49	offer	0008.6	Computers can <u>offer</u> escape from the hum-drum routine of daily life by means of games but they are mind-numbing and un-inventive.
50	break	0009.6	The back bone to a computer is its program, it can not <u>break</u> this program<?>, it is for this reason that many people such as Roger Penrose, (Oxford Physic Professor) thinks that computers can never take the place of man.
51	break	0009.6	A computer can never <u>break</u> progaming it will always follow it to pression.
52	deal	0005.6	Computers cannot <u>deal</u> with human beings, have no capacity for coping with anything outside their expected situations, and cannot adapt to new situations using judgement.
53	production	0008.6	Also, in schools I feel that work should be done mainly by hand and calculators and computers should only be used minimally in mathematics in order to stop the <u>production</u> of computer addicts and again have normal people.
54	deliver	0002.6	The closest that can happen is for a programmer to invent an appropriately complicated set of instructions (an algorithm) that will <u>deliver</u> an approximation of a set of random numbers.

Table 39: Basic Congruence, NICLE Prepositions

	Context [and suggested correction]	ICLE-NO-	Translation 1	Translation 2
1	More often the children joined <u>Ø</u> the work or they did other things. [in]	AG-0007.1	Oftest ble barna med i arbeidet eller de gjorde andre ting.	Det var vanligere at barna ble med i/på arbeidet eller gjorde andre ting.
2	Education plays a different role today than <u>Ø</u> the old times. [in]	AG-0007.1	Utdanning spiller en annen rolle i dag enn i gamle dager.	Utdannelse spiller en annen rolle i dag enn i gamle dager.
3	Because we learned that we should be happy for living <u>Ø</u> our own country, Norway, with healthcare, food and not to be afraid of being outside playing. [in]	AC-0001.1	Fordi vi lærte at vi skulle være glade for å leve i vårt eget land, Norge, med helsevesen, mat og uten å være redde for å være ute og leke.	Fordi vi har lært at vi skal være glade/takknemlige for å bo i landet vårt, Norge, med helsevesen, mat og ikke (treng å) være redd for å leke utendørs.
4	I believe that the world is still full of dreams just waiting to be exposed to the public as a positive achievement, maybe a new step in manhood, just like the first step on the moon or the first transportation of food and clothes to needy people in a war-area. [for]	AC-0001.1	Jeg tror at verden fortsatt er full av drømmer som bare venter på å bli vist fram for allmenheten som en positiv prestasjon, kanskje et nytt skritt for menneskeheten, akkurat som det første skrittet på månen eller den første transporten av mat og klær til trengende i et krigsområde.	Jeg tror at verden fortsatt er full av drømmer som bare venter på å bli vist fram til offentligheten som positive prestasjoner, kanskje et nytt steg/skritt for menneskeheten, akkurat som det første steget/skrittet på månen eller den første transporten av mat og klær til mennesker i nød i en krigssone.
5	To a lot of shy people, etc, the Internet has become a positive element in their life to meet new people. [for]	HO-0029.1	For mange sjenerte mennesker o.l. har Internett blitt et positivt element i livet deres [som gjør at de kan] møte nye mennesker.	For mange sjenerte mennesker [etc.?] har Internett blitt et positivt element i livet for å møte nye mennesker.
6	I am to discuss wether or not there is still a place for dreaming and imagination in our modern society or if science technology and industrialisation has completely taken over our needs of mental escape. [for]	AC-0013.1	Jeg skal diskutere om det fortsatt er plass til drømmer og fantasi i vårt moderne samfunn, eller om vitenskap, teknologi og industrialisering fullstendig har overtatt våre behov for virkelighetsflukt.	Jeg skal diskutere om det fortsatt er rom for drømmer og fantasi i vårt moderne samfunn eller om vitenskap, teknologi og industrialisering fullstendig har tatt over behovet vårt for mental flukt.
7	In this world of technological advances, we have to make use for them to our own benefit. [of]	HO-0029.1	I denne verden av teknologiske fremskritt må vi gjøre bruk av dem til vår egen fordel.	I denne verden av teknologiske fremskritt må vi gjøre oss nytte av dem til egen fordel.
8	As the world changes we come up with new knowledge and better ideas and we start to imagine what the future could look like, and as a result to that the world changes again. [of]	HB-0002.1	Ettersom verden forandrer seg kommer vi opp med ny kunnskap og bedre idéer og vi begynner å forestille oss hvordan fremtiden kan se ut, og som et resultat av det forandrer verden seg igjen.	Etter hvert som verden endrer seg, finner vi ny kunnskap og bedre ideer, og vi begynner å forestille oss hvordan fremtiden vil se ut, og som et resultat av det endrer verden seg på nytt.
9	Because, when it's on TV	AC-	For når det er på TV eller på	Fordi, når det er på TV eller på

	or at the Internet it have to be true. [on]	0001.1	Internett må det være sant.	Internett, må det være sant.
10	Emphasize on such a non-materialistic aspect is of great importance in a society which so strongly focuses at possession of objects. [on]	BE-0002.1	Vekt på et slikt ikke-materialistisk aspekt er svært viktig i et samfunn som så sterkt fokuserer på å eie ting.	Vektlegging av et slikt ikke-materialistisk aspekt er av stor viktighet i et samfunn som fokuserer så sterkt på å eie ting.
11	They maybe dreamt so much of it that they'd walk around with weapons. [about]	AG-0007.1	De drømte kanskje så mye om (av?) det at de ville gå rundt med våpen.	De drømte kanskje så mye om det at de gikk rundt med våpen.
12	In connection to this development materialism has become a well known term, and to many people the possession of objects and how to get a hold of them have grown to be their major interest in life. [with]	BE-0002.1	I forbindelse med denne utviklingen har materialisme blitt et velkjent begrep, og for mange mennesker har det å eie ting og hvordan man kan få tak i dem vokst til å bli deres hovedinteresse i livet.	I forbindelse med denne utviklingen har materialisme blitt et velkjent ord, og for mange mennesker har det å eie ting og hvordan man skaffer seg dem vokst til å bli deres største interesse i livet.
13	Let me start by making you a brief introduction of what I will explore further. [to]	AC-0021.1	La meg begynne med å gi deg en kort innføring i (innledning til) hva jeg vil utforske videre.	La meg starte med å gi deg en kort introduksjon til det jeg vil utforske videre.
14	The pupil has given reasons to why he or she has interpreted the poem as he or she has, but the interpretation differs from what most people or the teacher thinks or perhaps from what the author meant when he wrote the poem. [for]	AG-0019.1	Eleven har gitt begrunnelser for hvorfor han eller hun har tolket diktet som han eller hun har, men tolkningen er forskjellig fra hva folk flest eller læreren synes, eller kanskje fra hva forfatteren mente da han skrev diktet.	Eleven har oppgitt grunner for hvorfor han eller hun har tolket diktet slik han eller hun har, men tolkningen skiller seg fra hva folk flest eller læreren synes eller kanskje fra hva forfatteren mente da han skrev diktet.
15	It seems like young people today automatically seek for electronic. [reword: are drawn towards]	AG-0012.1	Det virker som unge mennesker i dag automatisk leter etter (søker mot ?) elektronikk.	Det virker som om unge mennesker i dag automatisk trekkes mot elektronikken.

Table 40: Ø Congruence, NICLE Prepositions

	Context [and suggested correction]	ICLE-NO-	Translation 1	Translation 2
1	People claimed for shorter days at work and more holidays. [Ø (delete)]	BE-0009.1	Folk krevde Ø kortere arbeidsdager og mer ferie.	Folk krevde Ø kortere arbeidsdager og mer ferie.
2	All the way back to when the electricity, telephone, TV and of other different things were discovered. [Ø (delete)]	AC-0001.1	Helt tilbake til da elektrisiteten, telefonen, fjernsynet og Ø andre forskjellige ting ble oppdaget.	Helt tilbake til når elektrisitet, telefon, TV og [mange] andre Ø forskjellige ting ble “oppdaget”.
3	You can take your work with you at home, and then choose when you want to do it. [Ø (delete)]	AG-0012.1	Du kan ta med deg arbeidet Ø hjem, og så velge når du vil gjøre det.	Du kan ta med deg arbeidet Ø hjem og så velge når du vil gjøre det.
4	I will not bow down to in awe to modern technology, nor be swept away completely by the enthusiasm of science, nor shall I ban or curse them. [Ø (delete)]	AG-0017.1	Jeg vil ikke bøye meg Ø i ærbødighet for moderne teknologi.	Jeg vil ikke bøye meg Ø i støvet for moderne teknologi. ærefrykt
5	We (as “consumers” of art) have to be able to compare what is expressed to us with experiences we have for ourselves, to be able to relate to the work of art. [Ø (delete)]	HO-0029.1	Vi (som “forbrukere” av kunst) må være i stand til å sammenlikne det som uttrykkes til oss med erfaringer vi har Ø selv, for å bli i stand til å forholde oss til et kunstverk.	Vi (som “konsumenter” av kunst) må være i stand til å sammenligne det som blir vist oss, med erfaringer vi har gjort Ø oss selv, for å være i stand til å forholde oss til kunstverket.

Table 41: Divergent Congruence (L1 transfer), NICLE Prepositions

	Context [and suggested correction]	ICLE-NO-	Translation 1	Translation 2
1	You can learn a lot of watching TV and videos, e.g. language. [by]	AG-0012.1	Du kan lære mye av å se på TV og video, f.eks. språk.	Du kan lære mye av å se på TV og video, f.eks. språk.
2	This world is moving to fast, I need a brake. Stop the world; I want to get of it! Help!” [off]	BU-0003.1	Stopp verden, jeg vil av ! Hjelp!”	Stopp verden; jeg vil av ! Hjelp!
3	As a result all these new discoveries have also opened our vision for new possibilities, both social and scientific. [to]	BE-0010.1	Som resultat av dette har alle disse nye oppdagelsene også åpnet vårt blik for nye muligheter, både sosialt og vitenskapelig (både sosiale og vitenskapelige).	Derfor har alle disse nye oppdagelsene også åpnet øynene våre for nye muligheter, både sosiale og vitenskapelige.
4	The computers abilities are expanding just as I am writing this essay and for that we can thank the ones who had a dream of making the computer to something more than just a typing machine. [into]	AC-0001.1	Datamaskinenes kapasitet tiltar alt mens jeg skriver dette essayet, og for det kan vi takke de som hadde en drøm om å gjøre datamaskinen til noe mer enn bare en skrivemaskin.	Datamaskinenes evner/muligheter utvikler seg mens jeg skriver denne stilen, og det kan vi takke dem som hadde en drøm om å gjøre datamaskinen til noe mer enn bare en skrivemaskin, for.
5	Seeing, feeling and experiencing things can be a seed to imagination. [for]	AG-0007.1	Å se, kjenne og oppleve ting kan være en spire til fantasi.	Å se, føle og oppleve ting kan være en spore til fantasien.
6	Some major reasons to this are the development of science technology and the industrialisation which have found place with swift speed during the last decades in our society. [for]	BE-0002.1	Noen hovedgrunner til dette er utviklingen av vitenskap, teknologi og industrialisering som har funnet sted i høyt tempo i de siste årtiene i vårt samfunn.	Noen av de viktigste grunnene til dette er teknologiutviklingen og industrialiseringen som har pågått med stor fart de siste tiårene i samfunnet vårt.
7	In this world of technological advances, we have to make use for them to our own benefit. [for]	HO-0029.1	I denne verden av teknologiske fremskritt må vi gjøre bruk av dem til vår egen fordel.	I denne verden av teknologiske fremskritt må vi gjøre oss nytte av dem til egen fordel.
8	Trevor chooses to do the things he likes on his spare time. [in]	AC-0021.1	Trevor velger å gjøre de tingene han liker på (i) fritida.	Trevor velger å gjøre tingene han liker, på fritida.
9	There are plenty of examples seen everyday in our modern world on how visions and fantasy still flourish among humanity. [for]	BE-0019.1	Det fins nok av eksempler å se hver dag i vår moderne verden på hvordan visjoner og fantasi fremdeles blomstrer blant menneskene (menneskeheten).	Det fins mange eksempler som man kan se hver dag i vår moderne verden, på hvordan visjoner og fantasi fortsatt blomstrer i menneskeheten (or “blomstrer blant menneskene”)

10	A social anthropologist called Thomas Hylland-Eriksen was talking about his experiences when he had been on the university to carry out some research. [at]	BU-0003.1	En sosialantropolog som heter Thomas Hylland-Eriksen snakket om sine erfaringer da han hadde vært på universitetet for å utføre noe forskning.	En sosialantropolog som heter T H-E, snakket om sine erfaringer med/innenfor forskning mens han gikk på universitetet.
11	Today we have figured out a lot of the things that our ancestors were struggling to find an answer on , when it comes to the earth, but we know in fact very little about	HB-0002.1	I dag har vi funnet ut mange av de tingene som våre forfedre strevde med å finne svar på når det gjelder jorda, men vi vet faktisk veldig lite om de andre planetene og universet generelt.	I dag har vi funnet ut masse som forfedrene våre strevde med å finne svar på , når det gjelder jorda, men vi vet faktisk veldig lite om de andre planetene og (om) universet generelt.
12	One of the good things of being a human being is that we have the possibility to put word on what we desire, what we wish for, and what we are dreaming about. [to]	HO-0023.1	En av de gode tingene med å være menneske er at vi har muligheten for å sette ord på hva vi begjærer, hva vi ønsker, og hva vi drømmer om.	En av de positive sidene ved å være menneske er at vi har muligheten til å sette ord på hva vi ønsker, hva vi ønsker, og hva vi drømmer om.
13	You are working in a software company. [for]	AC-0021.1	Du arbeider i et programvareselskap.	Du arbeider i et programvarehus.
14	I do not quite agree in this assertion, because industrialisation does also make the everyday much easier for us and gives us more sparetime as well. [with]	AG-0012.1	Jeg er ikke helt enig i denne påstanden, for industrialiseringen gjør også hverdagen mye enklere for oss og gir oss dessuten mer fritid.	Jeg er ikke helt enig i denne påstanden, fordi industrialiseringen også gjør hverdagen mye enklere for oss, og den gir oss mer fritid også.
15	I do agree in that statement, but anyway you have to use your imagination well in a lot of datagames and dataprogrammes. [with]	AG-0012.1	Jeg er enig i det utsagnet, men likevel må du bruke fantasien godt i mange dataspill og dataprogrammer.	Jeg er enig i det utsagnet, men uansett må du bruke fantasien din i mange dataspill og dataprogrammer.
16	In the moment you open that book you also open a door to your imagination, a secret fantasy world. [at]	BE-0009.1	I det øyeblikk du åpner den boka åpner du også en dør til din fantasi, en hemmelig fantasiverden.	I det øyeblikket du åpner den boka, åpner du også ei dør til fantasien din, en hemmelig fantasiverden.
17	I can not figure out how on earth an imaginative story can sell in such a large scale. [on]	BE-0015.1	Jeg kan ikke begripe hvordan i all verden en fantasi-fortelling kan selge i så stor skala.	Jeg skjønner ikke hvordan i all verden en fantasifull fortelling kan selge i så stor skala.
18	In fact I think it is one of the basics in human nature to wish for something else, to	HB-0002.1	Faktisk tror jeg det er noe grunnleggende i menneskenaturen å ønske seg noe annet, å forestille	Faktisk tror jeg det er en av de grunnleggende tingene i menneskets natur å ønske seg noe annet, å forestille

	imagine what life would be like if only this and if only that, to never quite be satisfied with the way things are. [of]		seg hvordan livet ville være hvis bare ditt og hvis bare datt, å aldri helt være fornøyd med hvordan ting er.	seg hvordan livet ville være hvis bare dette og hvis bare hint, å aldri være helt tilfreds med tingene slik de er.
19	Everything happened in an enormous fast speed. [at]	BE-0009.1	Alt skjedde/hendte <u>i</u> et enormt raskt/hurtig tempo	Alt skjedde <u>i</u> en voldsom fart.
20	Parents can't control what their children is watching on the TV Because there are so many channels to choose between. [among]	AC-0001.1	Foreldre kan ikke kontrollere hva barna deres ser på (på) TV fordi det er så mange kanaler å velge <u>mellom.</u>	Foreldre kan ikke kontrollere hva barna deres ser på på TV fordi det er så mange kanaler å velge <u>mellom.</u>

Table 42: Divergent Congruence (Preposition triads), NICLE Prepositions

	Context [and suggested correction]	ICLE-NO-	Translation 1	Translation 2
1	There are always negative and positive sides of things, and here I want to focus on the positive. [to]	AC-0021.1	Det er alltid negative og positive sider ved (av) ting, og her ønsker jeg å fokusere på de positive.	Det finnes alltid negative og positive sider ved ting, og her ønsker jeg å fokusere på det positive.
2	Young people, especially boys, dream that they are playing at Manchester United. [for]	AG-0007.1	Unge mennesker, særlig gutter, drømmer at de spiller på Manchester United.	Unge mennesker, særlig gutter, drømmer om å spille på Manchester United.
3	Today, the development have reached even further than at Dickens' time, yet the dreams of human beings are still alive. [in]	BE-0017.1	Idag har utviklingen nådd enda lengre enn på Dickens' tid, skjønt menneskenes drømmer er fortsatt levende.	I dag har utviklingen nådd enda lenger enn på Dickens tid; likevel lever menneskenes drømmer.
4	I can not agree to that. [with]	AC-0014.1	Jeg kan ikke være enig i det.	Jeg kan ikke være enig i det.
5	Some of those have urge to escape from reality in search for themselves. [of]	BE-0019.1	Noen av disse har trang til å flykte fra virkeligheten på leting etter seg selv.	Noen av dem har behov for å unnsnippe virkeligheten i leting etter seg selv.
6	I will not bow down to in awe to modern technology, nor be swept away completely by the enthusiasm of science, nor shall I ban or curse them. [of]	AG-0017.1	Jeg vil ikke bøye meg i ærbødighet for moderne teknologi.	Jeg vil ikke bøye meg i støvet for moderne teknologi. ærefrykt
7	I could not have disagreed more to such a statement. [with]	HO-0023.1	Jeg kunne ikke vært mer uenig i et slikt utsagn.	Jeg kunne ikke ha vært mer uenig i et slikt utsagn.
8	People have always been suspicious about it. [of]	AC-0001.1	Folk har alltid vært skeptiske til det.	Folk har alltid vært mistenksomme for det.
9	That has always been a part of the human life, and will probably always be as a reaction towards our daily lives filled with common sense and habits. [to]	BE-0019.1	Dét har alltid vært en del av menneskelivet, og vil antakelig alltid være det, som en reaksjon på våre daglige liv fylt med fornuft og vaner.	Det har alltid vært en del av livet og vil sannsynligvis alltid være det som en reaksjon på at vårt daglige liv er fylt av fornuft og vaner.
10	We would not have come far as even the most primitive human race used their imagination, and Ø this way found ways of survival. [in]	AC-0013.1	Vi ville ikke ha kommet langt, ettersom selv de mest primitive menneskene brukte sin fantasi, og på denne måten fant måter å overleve på.	Vi ville ikke ha kommet/nådd langt, siden til og med den mest primitive menneskerasen brukte fantasien sin og på denne måten fant måter å overleve på.
11	In the same way, more and more people seek into new religions, such as the New Age. [out]	BE-0019.1	På samme måte søker flere og flere mennesker til (inn i) nye religioner, slik som New Age.	På samme måte søker flere og flere mennesker seg til nye religioner, som for eksempel New Age.

12	We should take care in how our children spend their time and limit the use of “fantasy harming” experiences, the point isn’t supposed to be keeping the children busy until they have to go to bed! [with]	AG-0019.1	Vi burde passe på hvordan barna våre bruker tiden sin og begrense bruken av “fantasi-skadelige” opplevelser, poenget skal ikke være å holde barna i aktivitet til de må legge seg!	Vi bør passe på hvordan barna våre fordriver tiden og begrense bruken av “fantasiskadende” opplevelser, det er ikke meningen at hensikten skal være å oppholde barna til sengetid.
13	But sometimes I stop to remember myself of the important things in life; the things beyond money and glamour. [Ø (delete)]	AC-0001.1	Men av og til stopper jeg opp for å minne meg selv om de viktige tingene i livet; ting bortenfor (utenom, ut over) penger og glamour.	Men noen ganger stanser jeg for å minne meg selv på de viktige tingene i livet, de tingene som er viktigere enn penger og berømmelse.

Table 43: Divergent Congruence (Infinitive), NICLE Prepositions

	Context [and suggested correction]	ICLE-NO-	Translation 1	Translation 2
1	Maybe as children one of their first reactions of seeing the ocean is what lies behind it? [to/on]	AG-0007.1	Som barn er kanskje en av deres første reaksjoner på å se havet hva som ligger bortenfor det?	Kanskje en av deres første reaksjoner på å se havet, er hva som ligger bak det?
2	One of the good things of being a human being is that we have the possibility to put word on what we desire, what we wish for, and what we are dreaming about. [about]	HO-0023.1	En av de gode tingene med å være menneske er at vi har muligheten for å sette ord på hva vi begjærer, hva vi ønsker, og hva vi drømmer om.	En av de positive sidene ved å være menneske er at vi har muligheten til å sette ord på hva vi ønsker, hva vi ønsker, og hva vi drømmer om.
3	One of the good things of being a human being is that we have the possibility (Ø) to put word on what we desire, what we wish for, and what we are dreaming about. [of putting]	HO-0023.1	En av de gode tingene med å være menneske er at vi har muligheten for å sette ord på hva vi begjærer, hva vi ønsker, og hva vi drømmer om.	En av de positive sidene ved å være menneske er at vi har muligheten til å sette ord på hva vi ønsker, hva vi ønsker, og hva vi drømmer om.
4	Combined with the rapid development the question is wether these materialistic concerns leave us some time Ø dreaming and using our imagination, which I am going to focus this essay on. [for]	BE-0002.1	Kombinert med den raske utviklingen er spørsmålet om disse materialistiske hensynene etterlater oss noe tid til å drømme og bruke vår fantasi, noe jeg vil fokusere på i dette essayet.	Kombinert med rask utvikling er spørsmålet om disse materialistiske bekymringene gir oss tid til å drømme og bruke oppfinnsomheten vår, noe jeg vil fokusere på i denne stilen.
5	This can make it hard for some to get a job, and will prevent people Ø to make their dreams come true. [from making]	AG-0012.1	Dette kan gjøre det vanskelig for noen å få jobb, og vil hindre folk i å realisere sine drømmer.	Dette kan gjøre det vanskelig for noen å få jobb og vil hindre folk i å få oppfylt drømmene sine.

Table 44: Non-congruence (NCNP), NICLE Prepositions

	Context [and suggested correction]	ICLE-NO-	Translation 1	Translation 2
1	Why satisfy with what we have now if the ability of reaching our imaginative perfect world lies in the hands of the dreamers. [to (infintive) reach]	AC-0001.1	Hvorfor nøye oss med det vi har nå dersom evnen til å nå vår imaginære perfekte verden ligger i hendene på drømmerne.	Hvorfor være fornøyd med hva/det vi har nå hvis evnen/muligheten til å nå vår perfekte fantasiverden ligger i drømmernes hender.
2	We are not the same as for thousand years ago.	AG-0012.1	Vi er ikke de samme som for tusen år siden.	Vi er ikke som vi var for tusen år siden.
3	Now, though, you are surrounded by science technology: cell-phones, computers, electronics, and for not to be mentioning media.	AG-0012.1	Nå, derimot, er du omgitt av vitenskaps-teknologi: mobiltelefoner, datamaskiner, elektronikk, for ikke å snakke om media.	Nå, derimot, har du teknologi på alle kanter: mobiltelefoner, datamaskiner, elektronikk, for ikke å snakke om media.
4	Dreams can be as innocent as a little girls dream of becoming a ballet dancer or being asked to the prom by the guy she has had her eye on the last three months, it can be a students' dream of passing on a final exam to go on to law school or a football teams' dream of winning the world championship for the first time. [Ø (delete)]	AC-0001.1	Drømmer kan være så uskyldige som en liten pikes drøm om å bli ballettdanser, eller å bli bedt på skoleballet av gutten hun har hatt et godt øye til de siste tre månedene, det kan være studentens drøm om å stå på (til) eksamen for å gå videre til jusstudier, eller et fotballags drøm om å vinne verdensmesterskapet for første gang.	Drømmer kan være så uskyldige som ei lita jentes drøm om å bli ballettdanser eller å bli bedt (med) på ballet av gutten hun har hatt et godt øye til de siste tre månedene, det kan være en students drøm om å stå på en avsluttende eksamen for å studere juss eller et fotballags drøm om å vinne verdensmesterskapet for første gang.
5	Take for example: New Years Eve 2000, how everyone was worried about the computers and their technology wouldn't manage the transition, important medical equipment was in jeopardy of not working which could have had some serious consequences on people's lives. [Ø (reword with that)]	AC-0013.1	Ta for eksempel nyttårsaften 2000, hvordan alle var bekymret for [at] datamaskinene og deres teknologi ikke skulle klare overgangen, viktig medisinsk utstyr sto i fare for å ikke virke, [noe] som kunne ha fått noen alvorlige konsekvenser for folks liv.	Ta for eksempel nyttårsaften 2000, hvordan alle var bekymret for at datamaskinene og teknologien deres ikke skulle greie overgangen, viktig medisinsk utstyr stod i fare for ikke å virke, noe som kunne ha alvorlige konsekvenser for folks liv.
6	There are plenty of	BE-	Det fins nok av eksempler å	Det fins mange eksempler

	examples seen everyday in our modern world on how visions and fantasy still flourish among humanity. [Ø (reword)]	0019.1	se hver dag i vår moderne verden på hvordan visjoner og fantasi fremdeles blomstrer blant menneskene (menneskeheten).	som man kan se hver dag i vår moderne verden, på hvordan visjoner og fantasi fortsatt blomstrer i menneskeheten (or “blomstrer blant menneskene”)
7	Charles Dickens pictures in his book “Hard Times” Mr. Gradgrind “a man of fact and calculations”, to satirize over the industrial society and its lack of dreams and imagination. [Ø (delete)]	BE-0017.1	Charles Dickens skildrer i sin bok “Hard Times” herr Gradgrind, “a man of fact and calculations”, for å satirisere over det industrielle samfunn og dets mangel på drømmer og fantasi.	Charles Dickens gir i boka “Hard Times” et bilde av Mr. Gradgrind, “en mann av fakta og beregninger”, for å satirisere over det industrielle samfunn og dets mangel på drømmer og fantasi.
8	Some people say that children and youths do not develop when they sit in front Ø the TV all day long. [reword with polyword in front of]	AG-0012.1	Noen mennesker sier at barn og ungdom ikke utvikler seg når de sitter foran TV’en hele dagen.	Noen mennesker sier at barn og ungdom(mer) ikke utvikler seg når de sitter foran TV-en hele dagen.
9	It is said that all the movies and computer games ruin the child’s fantasy and it’s ability to make-believe. [to make believe (delete hyphen)]	AG-0007.1	Det sies at alle filmene og dataspillene ødelegger barnets fantasi og dets evne til å forestille seg [ting].	Det blir sagt at alle filmene og dataspillene ødelegger barnas fantasi og deres evne til å finne på .
10	We see the fruits of this development everyday by watching television, using the telephone or surfing on the internet. [Ø (delete)]	AC-0013.1	Vi ser fruktene av denne utviklingen hver dag ved å se på TV, bruke telefon eller surfe på Internett.	Vi ser fruktene av denne utviklingen hver dag gjennom å se på TV, bruke telefonen eller surfe på Internett.

Table 45: Non-congruence (NCEP), NICLE Prepositions

	Context	ICLE- NO-	Translation 1	Translation 2
1	Even better, you could take an airplane and visit him in within a few hours. [delete either <i>in</i> or <i>within</i>]	AC-0021.1	Enda bedre, du kunne ta et fly og besøke ham i løpet av noen få timer.	Enda bedre, du kunne ta et fly og besøke ham i løpet av et par timer.
2	We should take care in how our children spend their time and limit the use of “fantasy harming” experiences, the point isn’t supposed to be keeping the children busy until they have to go to bed! [with]	AG-0019.1	Vi burde passe på Ø hvordan barna våre bruker tiden sin og begrense bruken av “fantasi-skadelige” opplevelser, poenget skal ikke være å holde barna i aktivitet til de må legge seg!	Vi bør passe på Ø hvordan barna våre fordriver tiden og begrense bruken av “fantasiskadende” opplevelser, det er ikke meningen at hensikten skal være å oppholde barna til sengetid.
3	Does it deprive us from social contact? Context [and suggested correction] [of]	HO-0029.1	Fratar (berøver) Ø det oss sosial kontakt?	Fratar Ø det oss sosial kontakt? Gir det oss underskudd på sosial kontakt?

Table 46: Different translation strategies, NICLE Prepositions

	Context	ICLE-NO-	Translation 1	Translation 2
1	It is in fact the same thing with films/videos as with books, we tend to use them as a port to an imaginary world. [reword without port]	HO-0023.1	Det er faktisk det samme med filmer/video som med bøker, vi bruker dem gjerne som en innfallspport til en fantasiverden. DCongr (L1 transfer)	Det er faktisk det samme med filmer/videoer som med bøker, at vi gjerne bruker dem som en vei inn i en fantasiverden. DCongr (Preposition triad)
2	Because we are in reach for everyone all the time, and we communicate a lot more than people were able to do a hundred years ago. [of]	BU-0003.1	Fordi vi er tilgjengelige for alle hele tiden, og vi kommuniserer mye mer enn mennesker kunne gjøre for hundre år siden. DCongr (L1 transfer)	Fordi vi alltid er innenfor rekkevidde av hverandre, og vi kommuniserer mye mer enn folk var i stand til for hundre år siden. BCongr
3	In contrast to the stressed and chaotic world that is surrounding us, there is no doubt that the possibility of being able to let your thoughts live their own life for some stolen seconds during our busy everyday life, are extremely appreciated to us all. [by]	BE-0009.1	I kontrast til den stressende og kaotiske verden som omgir oss, er det ingen tvil om at muligheten for å kunne la dine tanker leve sitt eget liv i noen stjalne sekund i løpet av vårt travle hverdagsliv, blir satt ekstremt pris på av oss alle. DCongr (Preposition triad)	Det er ingen tvil om at muligheten til å la tankene leve sitt eget liv i noen stjalne sekunder i den travle hverdagen, er noe vi Ø alle setter pris på som en motsetning til den stressende og kaotiske verden som omslutter oss. NCEP
4	Every second a new invention comes to being. [into]	BE-0009.1	Hvert sekund bli en ny oppfinnelse til . DCongr (L1 transfer)	Hvert sekund kommer det en ny oppfinnelse Ø . NCEP
5	Another vital result of the development is the replacement of machines to do work previously done by human beings, and using machines instead of human work force also means that the machines do the thinking instead of us and they also work faster than we would have done. [by]	BE-0002.1	Et annet vesentlig resultat av utviklingen er innsetting av maskiner for å gjøre arbeid tidligere gjort av mennesker, og å bruke maskiner istedenfor menneskelig arbeidskraft betyr også at maskinene gjør tankearbeidet istedenfor oss, og de arbeider også raskere enn vi ville gjort. DCongr (L1 transfer)	En annen viktig følge av utviklingen er at Ø maskiner blir satt til å gjøre arbeid som tidligere ble gjort av mennesker, og bruk av maskiner i stedet for menneskelig arbeidskraft betyr også at maskinene tenker for oss, og de arbeider også raskere enn vi ville ha gjort. NCEP
6	You always have a choice Ø how to handle a situation! [about]	AC-0021.1	Du har alltid et valg om hvordan du kan takle en situasjon! BCongr	Du har alltid et valg med hensyn til hvordan du skal takle en situasjon. NCEP
7	If it is war, abuse or to live in the world today with all the science technology and industrialization, you still	AC-0021.1	Enten det er krig, misbruk, eller å leve i verden i dag med all [dens] vitenskap, teknologi og	Hvis/Enten det er krig, mishandling eller å leve i verden i dag med all vitenskap, teknologi og industrialisering, vil du

	have a choice <u>Ø</u> how to respond to the situation. [about]		industrialisering, har du fortsatt et valg <u>om</u> hvordan du kan reagere på situasjonen. BCongr	fortsatt kunne velge <u>Ø</u> hvordan du skulle reagere på situasjonen. NCEP
8	To a lot of shy people, etc, the Internet has become a positive element in their life <u>Ø to meet</u> new people. [for meeting]	HO-0029.1	For mange sjenerte mennesker o.l. har Internett blitt et positivt element i livet deres <u>Ø</u> [som gjør at de kan] møte nye mennesker. NCEP	For mange sjenerte mennesker [etc.?] har Internett blitt et positivt element i livet <u>for å møte</u> nye mennesker. BCongr
9	It has often been questioned whether there is no longer a place for dreaming and imagination in our modern world as a result of the increasing <u>of</u> dominance by science technology and industrialisation. [Ø]	BE-0019.1	Det har ofte blitt satt spørsmålsteget ved om det ikke lenger finnes plass for drøm og fantasi i vår moderne verden, som resultat av den økende <u>Ø</u> dominans av vitenskap, teknologi og industrialisering. ØCongr	Det har lenge blitt stilt spørsmål ved om det ikke lenger er plass til drømmer og fantasi i vår moderne verden, på grunn av økningen <u>i</u> teknologiens og industrialiseringens dominans. NCNP
10	But sometimes I stop to remember myself of the important things in life; the things <u>beyond</u> money and glamour. [Ø (reword)]	AC-0001.1	Men av og til stopper jeg opp for å minne meg selv om de viktige tingene i livet; ting <u>bortenfor (utenom, ut over)</u> penger og glamour. NCNP	Men noen ganger stanser jeg for å minne meg selv på de viktige tingene i livet, de tingene <u>Ø</u> som er viktigere enn penger og berømmelse. ØCongr

Table 47: LOCNESS novel metaphorical prepositions

	Context	ICLE-ALEV-
1	There are many situations where humans can travel through on foot that wheeled vehicles can not cope Ø .	0002.6
2	This provides simple additional information not requiring the brain to think much, unless one is able to think around it such as in companion to other planet's surfaces.	0006.6
3	This argument could point to the computer as the replacement of human brains yet their development is similar to ours, as we programme them according to the knowledge which we acquire.	0006.6
4	The back bone to a computer is its program, it can not break this program<?>, it is for this reason that many people such as Roger Penrose, (Oxford Physic Professor) thinks that computers can never take the place of man.	0009.6
5	As supply in computers through changing technology arrived, so demand was to gradually increase in the long term, both for the individual and for the firm.	0010.6
6	Yet amongst the job losses through this [robots replacing people and computers], in the UK students in sixth form wishing to go on to university are nearing the highest level they've ever been.	0010.6
7	It would be unintelligent to blame these factors at the development of computers.	0010.6
8	...it is only fair in helping her to have children.	0003.8
9	I don't think this is fair or morally correct to the child since her mother would be claiming her pension when she was at primary school and her mother would probably die while the child was in her teens.... there should be a test that is given before (IVF) is carried out to check the mother is not past the menopause.	0003.8
10	I find this a difficult issue to agree Ø or oppose as only being young and having my life ahead it is quite easy to say that it is disgraceful women of late 50's having children and they had their chance and they let it go but if at fifty and maybe you put your career first all your life and now want a family should you not be given the chance and is it not how old you are but what kind of a mother you would be?	0003.8
11	I find this a difficult issue to agree or oppose as only being young and having my life ahead it is quite easy to say that it is disgraceful women of late 50's having children and they had their chance and they let it go but if at fifty and maybe you put your career first all your life and now want a family should you not be given the chance and is it not how old you are but what kind of a mother you would be?	0003.8
12	The debate Ø to have fertility treatment is a completely separate issue as the couple want a child and will have it the same be it a boy or girl and as mentioned before maybe the mother may have started menopause early which is not her fault at all, so why should be hold against her?	0003.8
13	As there are no advantages or disadvantages in having a male or female child people would begin to chose [the sex of the child] on prejudices...	0009.8
14	One could wrangle endlessly about the pros & cons of genetically manipulated wheat varieties but the question to ask is do we judge on intention or on result.	0016.8
15	One could wrangle endlessly about the pros & cons of genetically manipulated wheat varieties but the question to ask is do we judge on intention or on result.	0016.8
16	All of this argument depends on the scientist seeing the potential dangers on his work.	0018.8
17	He was simply asked to design a machine gun for the czechoslovakian government: is he to shoulder the responsibility of the deaths caused by Kalashnikov rifles?	0018.8
18	In conclusion, in general, it is not the original scientist, or discoverer who should be held responsible morally for his discoveries, it is the people who implement his discoveries either badly on with mal intent	0018.8
19	The human gene for insulin production was inserted into plasmids for circular loops of DNA (found in Bacteria) along with an antibiotic resistance gene which killed of	0020.8

	other bacteria leaving behind the bacteria containing the insulin gene.	
20	Processes such as this are invaluable to the treatment of certain diseases and conditions as they allow people infected to lead relatively normal healthy lives.	0020.8
21	I hope no offence is taken from this.	0021.8
22	One of the main advantages is the ability to tailor other organisms genetic makeup towards man's needs.	0023.8
23	There may be no individuality [?] people select the aspects they want their children to have, so people don't have faults of imperfections everyone is all the same in looks ideas.	0026.8
24	The case of IVF being performed as a post-menopausal women affects the child as well.	0029.8
25	The guide lines should not be so strict as to make in vitro fertilisation impossible for couples - just harder and to make people think more on the option of adoption.	0030.8