# **Chapter 7 Linguistic metaphor identification in Scandinavian**

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# 7.1 Introduction

This chapter details the application of MIPVU to written discourse in the Scandinavian languages Danish, Norwegian, and Swedish, and has several purposes. Our primary aim is to explore the various procedural issues that need to be considered when applying MIPVU to these three closely related languages, and, in doing so, to develop a version of the identification procedure that is more or less identical for the three languages – that is, a Scandinavian MIPVU. Related aims include the presentation of illustrative examples of our metaphor identification procedure on Danish, Norwegian, and Swedish discourse relevant for others using the method in these languages, as well as discussion of inter-rater reliability in the application of Scandinavian MIPVU.

We open this chapter with a brief discussion in section 7.2 about the links between Danish, Norwegian and Swedish, explaining why there is no need to develop three completely independent varieties of the MIPVU protocol for these languages. Section 7.3 continues with an exploration of particular procedural issues requiring special consideration when applying MIPVU to Scandinavian: choice of dictionaries and demarcation of lexical units. Section 7.4 outlines our Scandinavian procedure, while section 7.5 presents specific examples of metaphor identification in the three languages using our MIPVU protocol. Section 7.6 goes on to discuss our inter-rater reliability with respect to both demarcation of lexical units and identification of metaphor-related status (indirect/direct/implicit metaphor, not metaphor, etc.). Finally, section 7.7 offers concluding thoughts.

#### 7.2 Lexico-grammatical features of Scandinavian

Danish, Norwegian and Swedish are all Germanic languages spoken in northern Europe. There are roughly 5 million L1 speakers of Danish in Denmark; in addition, Danish is an important second language in Iceland, the Faroe Islands and Greenland and a minority language in northern Germany. Norwegian is an L1 for roughly 5 million people in Norway. L1 Swedish is spoken by approximately 10 million people in Sweden as well as 300,000 people in Finland, where it is an official language along with Finnish (which belongs to an entirely different language family).

The reasons for regarding Danish, Norwegian, and Swedish as different languages are political and historical rather than linguistic. They arise from the fact that the languages are linked to specific geographical territories in which they are standardized, taught in schools, used in mass media and literature, etc. (Torp 1998: 26). Linguistically speaking, however, Danish, Norwegian, and Swedish are all language varieties of common northern Germanic heritage within a single Scandinavian dialect continuum, i.e. "Scandinavian". Consequently, they are largely mutually comprehensible, to the extent that L1 speakers of the three languages may reasonably expect to be able to use their own vernaculars in contact situations with each other rather than having to resort to using a lingua franca such as English. Communication between users of the three languages is thus interdialectal rather than interlingual.

The contrasts between Danish, Norwegian, and Swedish are complicated to map, but Norwegian is generally held to be the 'language in the middle'. While Norwegian and Danish differ most in pronunciation and Norwegian and Swedish differ most in lexis, both pronunciation and lexis contribute to possible challenges between speakers of Danish and Swedish (Torp 1998: 20-26, 155).

Many of the lexical similarities between Danish and Norwegian are due to the historic union between Denmark and Norway that lasted for almost three centuries, from 1524 to 1814. During the Dano-Norwegian union, Norway experienced a situation of diglossia, with Danish as the high/written variety especially in urban areas, and the various Norwegian dialects as low/oral varieties in the rest of the country. The period after 1814 in Norway witnessed the gradual 'Norwegianization' of Danish into the written standard today called *bokmål* ('book language') or Dano-Norwegian, as well as the rise of a rival written standard based on traditional Norwegian dialects, called *nynorsk* or New Norwegian (see e.g. Braunmüller 2002:

2; Torp 1998: 119). Both written standards are currently in official use, with approximately 90% of Norwegian pupils using *bokmål* and the remaining 10% using *nynorsk* (Språkrådet n.d.).

It is lexical differences that are most likely to cause barriers to communication, especially between those who speak Swedish and those speaking either Danish or Norwegian. When it comes to lexis, a typical situation is that Danish and both Norwegian dialects use more or less the same word, while Swedish prefers a different (Germanic or Nordic) word, exemplified in Torp (1998: 75) by the respective translation correspondents for the verb *to ask: spørge* (Danish), *spørre* (Norwegian *bokmål*), *spørje* (Norwegian *nynorsk*), and *fråga* (Swedish). One reason for such lexical differences is that the three languages have borrowed different Low German words into their languages. Low German words were borrowed into Swedish as a result of trade with Germans in the towns of Stockholm and Kalmar, but into Danish due to direct contact between Denmark and its neighboring country. Low German loan words into Norwegian came via Danish, or via trade with Germans in the town of Bergen (Torp 2004: 67; see also Delsing & Åkesson 2005).

One of the earliest linguists to study interaction between speakers of the three languages, Einar Haugen, famously characterized Scandinavian as "semicommunication, the trickle of messages through a rather high level of 'code noise'" (Haugen 1966: 281), the term 'code noise' referring to the extra work required to interpret (or 'decode') utterances in a less familiar dialect. If there is problematic communication, it may be due to linguistic divergences between the dialects, and/or perhaps equally due to mental barriers or negative attitudes towards other varieties, as many naturally prefer their own language variety. However, the possibility of miscommunication, something which may arise in *any* form of communicative interaction, should not detract from the high degree of accommodation and convergence between speakers of the three languages. As Braunmüller explains,

the linguistic situation in Mainland Scandinavia of today can metaphorically be characterized as a house lacking a roof, which has wide open doors between its rooms and in which the observer gains the impression that all rooms are still part of one and the same building. (Braunmüller 2002: 2-3)

The unmediated mutual understanding that speakers of Danish, Norwegian and Swedish enjoy when communicating with each other, either in written or spoken form, opens the possibility of developing a single Scandinavian MIPVU. Accordingly, for the purpose of this chapter, the term *Scandinavian* is henceforth used in reference to the three languages as a whole, as well as when referring to their common features.

# 7.3 Procedural issues

The overall ambition when applying MIPVU to the analysis of discourse in Scandinavian is to follow the original MIPVU protocol as closely as possible, because previous research has shown the procedure to be a valid, reliable and replicable means of identifying metaphor (see e.g. Steen et al. 2010). However, working with three languages that differ from both English and also, to some extent, from each other raises certain issues with regard to operational and lexico-grammatical levels.

There are two primary concerns that require resolution. One is that the original version of MIPVU relies heavily on established (online corpus-based) English dictionaries to determine the contextual and more basic senses of words. Corresponding dictionaries for the Scandinavian languages are desired, as quality dictionaries significantly improve the work involved in reliable identification of the senses of words. The second issue is lexico-grammatical, concerning the demarcation of lexical units. The English version of MIPVU usually equates the 'lexical unit' with the orthographic word, but also has a handful of exceptions. Whether any such exceptions exist in Scandinavian, along with how to reliably demarcate them, requires careful consideration. These two matters are discussed in the two following subsections.

#### 7.3.1 Dictionaries

Because of the lexical differences between Danish, Norwegian and Swedish, there is no single dictionary that may be used for all three languages. In addition, dictionaries may clearly vary in quality, so some degree of selectivity is required. We consequently developed three main criteria for selecting dictionaries for use with the Scandinavian version of MIPVU.

First, the dictionaries have to be available in an easily accessible digitized format, with direct online access and/or possibilities for downloading on a computer or as an app. The need for frequent dictionary consultation while working with MIPVU makes reliance upon non-digitized dictionaries a time-consuming option that is unfeasible for all practical purposes. We also decided to restrict ourselves to dictionaries that were either free or low-cost, as lack of

funds should not prevent anyone from applying Scandinavian MIPVU to their data. Rather, anyone with online access should be able to identify metaphor.

Second, the three dictionaries should focus mainly on the contemporary language, rather than on etymology, because MIPVU is intended to identify linguistic metaphor in current use rather than origin. This entails that any semantic contrast that contributes to metaphorical meaning must still be recoverable in the language, which is not the case with historical metaphors whose more basic sense(s) may have become archaic. An example of such a historical metaphor is the word *ardent*, whose original concrete meaning related to temperature has been completely supplanted by a meaning related to emotions (see Steen et al. 2010: 6-7). Etymological dictionaries, however, have proved helpful to trace possible links from a non-metaphorical to metaphorical meaning, in much the same way as the *Oxford English Dictionary* does for English.

Third, only dictionaries that are endorsed or developed by a research institution and/or national language council should be considered, as this requirement effectively filters out dictionaries that are created on a less rigorously scientific basis. They should preferably be corpus-based. The rationale for this criterion is to ensure a high quality, to as great extent as possible, with dictionaries based on solid linguistic and lexicographical research.

That said, while English is fairly spoiled for choice when it comes to good corpus-based dictionaries, the situation with regard to Scandinavian dictionaries is less favorable. For Danish, our dictionary of choice is *Den Danske Ordbog* 'The Danish dictionary' (henceforth *DDO*), a corpus-based dictionary created by lexicographers from the Society for Danish Language and Literature, a Danish research institution documenting Danish language and literature, past and present.<sup>1</sup> It describes the vocabulary of modern Danish (from 1955 to the present-day), and contains almost 99,000 words with more words being added each month. A possible alternative would be one of the so-called *Røde ordbøger til det danske sprog* 'Red dictionaries for the Danish language', but people who want to consult these reference works have to be students or staff at a Danish school or university, or alternatively, pay to gain access. Because of our interest in low-cost and/or freely available options, we discarded this dictionary for further consideration or testing.

For Norwegian *bokmål*, there is only one viable choice at present: the *Bokmålsordboka* (henceforth *BmO*), which is "the first monolingual defining dictionary for modern Bokmål, showing current orthography and morphology, senses and usage examples" (Universitet i

<sup>&</sup>lt;sup>1</sup> The Danish dictionary (DDO) is available at http://ordnet.dk/ddo. The 'red dictionaries' are available at www.ordbog.gyldendal.dk.

Bergen & Språkrådet 2017a).<sup>2</sup> This dictionary was first published in 1986 and last revised in 2016, through collaboration between lexicographers at the University of Oslo (UiO) and the Norwegian Language Council. In 2016, the University of Bergen took over UiO's role as collaboratory partner. BmO includes general language, while specialist terminology and infrequent foreign words are omitted. Note also that an new online Norwegian dictionary was published through a collaboration between the Norwegian Academy for Language and Literaure and Scandinavian University Press at the end of 2017, after the development of the current chapter: *Det Norske Akademisk Ordbok* 'The Norwegian Academic Dictionary'. This dictionary is likely to be more suitable for MIPVU than the BmO, but was not published in time to be evaluated here.

For Swedish, we selected the corpus-based dictionary *Svensk ordbok* 'Swedish dictionary' (henceforth *SO*), the only Swedish dictionary that currently meets our three selection criteria. This reference work was developed by linguists from the University of Gothenburg and published by the Swedish Academy, whose mission is the advancement of Swedish language and literature. It contains 65,000 words, to provide an "in-depth description of the general vocabulary of contemporary Swedish"<sup>3</sup> with a focus on meaning and use, in combination with historical origins of around 28,000 words.

The situation with regard to etymological dictionaries varies from language to language. Danish has the *Ordbog over det danske sprog* 'Dictionary of the Danish language', first published in the period between 1918 and 1946 in 28 volumes, and now available online. It covers the language from 1700 to 1950. Five additional volumes have been published, but are not yet available online. Swedish has the *Svenska Akademiens ordbok* 'The Swedish Academy's dictionary', covering the language from the 1520s to the present. The entire dictionary, however, is not yet accessible online; only words from the letters A through V are available. Norwegian *bokmål*, by contrast, has no corresponding etymological dictionary.<sup>4</sup>

7.3.2 Lexical units

<sup>&</sup>lt;sup>2</sup> The Norwegian dictionary (BmO) is found here: http://ordbok.uib.no/perl/ordbok.cgi. *Det Norske Akademisk Ordbok* is available at https://www.naob.no/.

<sup>&</sup>lt;sup>3</sup> For information about the Swedish dictionary (SO), see http://www.svenskaakademien.se/svenska-spraket/svensk-ordbok-utgiven-av-svenska-akademien-so-nu-tillganglig-som-app. This dictionary is available as an app.

<sup>&</sup>lt;sup>4</sup> The Danish etymological dictionary is available at http://ordnet.dk/ods. The Swedish etymological dictionary is available at http://www.svenskaakademien.se/svenska-spraket/svenska-akademiens-ordbok-saob.

The unit of analysis for MIPVU is the lexical unit, which typically corresponds to the orthographic word. The original protocol includes certain exceptions to this general rule. English phrasal verbs, compounds and polywords are all multiword units demarcated as single lexical units and analyzed for metaphor on this basis, and the protocol includes instructions for how to identify them. Any corresponding exceptions in these three Scandinavian languages must therefore be brought to light before the metaphor identification procedure may continue. Although both Scandinavian and English belong to the Germanic language family, there are some differences in their lexical structures that are consequential for the development of the Scandinavian version of the procedure.

First, we find certain types of lexical units requiring special consideration in English to be unproblematic in Scandinavian. For example, Scandinavian compounds are typically formed as either solid or (less frequently) hyphenated orthographic units in cases where English would write two or more words. Because there are (almost) no such spaced compounds in Danish, Norwegian or Swedish, there are no special challenges with identifying Scandinavian compounds as single lexical units. The only possible 'tricky' case with respect to lexical demarcation compounds may be the relatively seldom occurrence of hyphenated and spaced elements. This typically occurs in compounds including numerals, as in the Norwegian Constitution Day). Note that the Scandinavian procedure that we developed also considers these combined spaced and hyphenated compounds to be single lexical units, despite the spaced component, as in the original MIPVU; a sample metaphor analysis of such a lexical unit is presented further on in in example (5) of section 7.5.

In a similar vein, phrasal verbs need not present any particular challenge for the Scandinavian MIPVU. Like Dutch and German (see Chapters 5 and 6 respectively, this volume), the Scandinavian languages also have separable verbs, consisting of a lexical core and a particle that is sometimes separated. In some contexts, the verb is written as a single orthographic word in the form *Particle+Verb*; in other contexts, the verb is written as spaced orthographic words in the form *Verb\_space\_Particle*. In most cases, there is a difference in meaning between a solid verb and its spaced counterpart, e.g. Norwegian *overse* means 'to ignore/condone', while *se over* means 'to inspect'. Such semantic differences may not necessarily be mirrored in all three languages. For example, Swedish *överse* means both 'to inspect' and 'to have patience with' while *se över* means 'to inspect' and 'to miss'. In other cases, the solid and spaced alternatives are synonymous, with any difference between them being stylistic rather than semantic, e.g. both Danish *fremlægge* and *lægge frem* mean 'to

suggest' or 'to present', although *lægge frem* could also connote physically laying something in plain sight. However, the borderline between prepositional verbs and phrasal verbs can be rather fuzzy (see e.g. Hanks 2013: 296). As a result, we suggest that Scandinavian MIPVU analyze phrasal verbs in accordance with their orthography, i.e. as one unit when solid and as more than one unit when split.

Further, Scandinavian has a large number of reflexive verbs, indicating that the subject is performing the action expressed by the verb upon itself, as in the following example from Danish:

DanskFolke-partivilsættesigispids-en.Danishpeople.GEN-party willset.INFitselfintip.ART.DEF.COM'The DanishPeople's Party willposition itselfin the lead.'

All such verbs consist of a main verb (here; *sætte*) and accompanying reflexive pronoun (here: *sig*) that agrees with the subject. They are often provided with individual entries in the Scandinavian dictionaries apart from the entry for the main verb in question, in which case the reflexive verb is clearly considered to be a different lexical unit than the lexical verb alone. We consequently suggest that reflexive verbs be identified as single lexical units, despite consisting of more than a single orthographic word. Their identification is unproblematic. All reflexive verbs are accompanied by a reflexive pronoun, whereas non-reflexive verbs are not accompanied by this type of pronoun. Section 7.5 includes an example of our analysis of just such a reflexive verb; see example (4).

The most challenging multiword unit to identify in Scandinavian is that of polywords. As of this writing, no definitive polyword lists exist for any of the three languages. Moreover, the Scandinavian dictionaries have no clear distinction between common collocations and polywords—the former being between individual lexical units that frequently appear together while the latter being short, fixed expressions that function as individual lexical units. Although we recognize that developing valid criteria for polyword identification in the three languages is important, especially for cross-study comparisons, in-depth research into Scandinavian polyword identification is nevertheless beyond the scope of the present chapter. In the meantime, however, we have developed preliminary polyword lists, one for each of the three languages. The overall goal, with all three lists, was to include as many polywords as possible while excluding what are no more than common collocations.<sup>5</sup>

For Danish, a list of polywords was compiled in collaboration with the Danish Language Council on the basis of their dictionary called the *Retskrivningsordbogen Plus* (www.roplus.dk). The search \*[*space*]\* was performed to single out all words containing one or more spaces that are listed in the dictionary as one entity, and thus as a single lexical unit for the purposes of Scandinavian MIPVU. Most words in the list correspond with the expressions in the Norwegian list (see below), with the addition of loanwords from other languages, such as *al dente* from Italian and *en suite* from French. Such foreign expressions are common in spoken and written Danish and may be treated as one lexical unit in Danish, just as they are in English when following the original version of MIPVU. The Danish list consists of 465 polywords.

When it comes to Norwegian, we based our polyword list on a pre-existing list of multiword expressions developed in conjunction with the Oslo-Bergen tagger on the basis of the 'Lexicographical *bokmål* corpus', a 100-million word corpus that is balanced between different types of texts and genres. This list consists of 133 expressions that are treated by the tagger as single lexical units.<sup>6</sup> No background information is provided concerning exactly how this list was compiled, however, and close inspection shows a variety of expressions, only some of which correspond to the English polywords – i.e. expressions that could have been written as single orthographic words. Others appear to be collocations that might have been overly frequent in the tagged corpus, e.g. År 2000 'Year 2000'. However, this corpus-based list provided a starting point for a narrowed list of polywords alone, something that Pasma, for example, lacked for Dutch when she chose to analyze potential polywords on the basis of their individual elements (Chapter 5, this volume).

Our working list of Swedish polywords was compiled with the help of the Swedish Associative Thesaurus version 2 (SALDO), a descriptive lexicon resource for the modern Swedish written language.<sup>7</sup> This tool, however, includes a much broader range of phrases than those that fit the MIPVU definition of polywords as fixed expressions functioning as individual lexical items. For instance, the Swedish idiom *vind i seglen* 'wind in the sails' (to refer to [metaphorical] momentum) is tagged as a nominal polyword in SALDO, even though it is a

<sup>&</sup>lt;sup>5</sup> All three polyword lists are available as supplementary material at this volume's Open Science Framework website, along with more details about the texts; see Chapter 7 folder at https://osf.io/vw46k/.

<sup>&</sup>lt;sup>6</sup> The Oslo-Bergen list is available at http://www.tekstlab.uio.no/obt-ny/uttrykk.html.

<sup>&</sup>lt;sup>7</sup> SALDO is available at https://spraakbanken.gu.se/eng/resource/saldo.

strong collocation composed as three separate lexical units rather than a non-separable polyword. To rule out such collocations, we ran the SALDO list through a part-of-speech (PoS) tagger and excluded all expressions that were not annotated as polywords there as well. We also excluded all reflexive verbs on the SALDO list; as explained earlier, there is no need for a list of reflexive verbs as the reflexive pronoun makes them easily identifiable. These exclusions reduced the SALDO list from 137,000 expressions to our final Swedish polyword list with 1869 entries.

The differences in scope between the lists is clearly far from ideal, as is the varied ways in which they were developed. Following our lists, more lexical units will be analyzed as polywords in Swedish than in Norwegian and Danish, and more lexical units will be identified as polywords in Danish than in Norwegian. Polywords are rarely metaphorical, however, so this discrepancy should have few consequences for metaphor identification per se. Nevertheless, we welcome future research on polywords in the three languages.

# 7.4 Scandinavian MIPVU in a nutshell

Scandinavian MIPVU follows the original English MIPVU, with the primary exception of the procedure's second step of determining the lexical units in the text/discourse. Although the Scandinavian protocol retains the orthographic word as the unit of analysis for metaphorical use, the exceptions to this general practice differ from those in the original procedure. More specifically, there are two types of exceptions: reflexive verbs and polywords. Reflexive verbs are identified in the three languages by the appearance of the reflexive pronoun colligating with the main verb. Polywords are identified through reference to our polyword lists, similar to the way in which the original MIPVU protocol relies upon the finite list of multiword expressions developed on the basis of the British National Corpus. If an expression is included on the relevant list, the expression is analyzed as a single word; otherwise, the units are treated as individual lexical units.

One additional minor difference between the original and Scandinavian protocols is worth mentioning. As discussed in section 7.3, Scandinavian MIPVU considers all compounds to be single lexical units, but no special procedure is needed to identify them because they are nearly always written as solid or hyphenated. Compounding is extremely prolific in the Scandinavian languages, however, making it impossible to include all of them in dictionaries. Indeed, the BmO Norwegian dictionary specifically states that inclusion "is not necessary, because as a rule speakers of Scandinavian easily understand their meaning" (Universitet i Bergen & Språkrådet 2017b).

If the compound is not codified in dictionaries, then it is essentially a novel compound for the purposes of MIPVU, and its basic sense must then be determined through reference to the definitions of its constituent elements. In the original procedure, these constituent components are analyzed individually for metaphor, such that one of them might be judged as metaphor, while the other might be judged as not metaphorical; an example for this is the novel compound *state-masonry* referring to political craftsmanship, where *state* is analyzed as notmetaphorical while *masonry* is metaphor (Steen et al. 2010: 47-48). In the Scandinavian procedure, however, if either of the constituent elements is judged metaphorical in the particular context in which they appear, the entire compound is marked as a metaphor-related word. Our rationale for this decision is that we thus avoid breaking up single orthographical lexical units.

Although the original MIPVU protocol does not call for the use of any particular dictionary when determining contextual and basic meanings, the developers of the procedure nevertheless employed particular dictionaries which figure heavily in their work – the *Macmillan English dictionary for advanced learners* (MM) and the *Longman dictionary of contemporary English* (LM). As discussed in section 7.3.1, we recommend particular dictionaries for metaphor identification in Scandinavian discourse, one dictionary per language. In addition, both Danish and Swedish have online etymological dictionaries that may sometimes be helpful when attempting to determine the origin of a particular metaphorical expression.

In general, Scandinavian MIPVU may therefore be said to be a single protocol that closely mirrors the original procedure developed for English. Moreover, the three languages are similar enough to each other that the same basic procedure may be applied to all three languages. The only areas where the Scandinavian MIPVU requires three separate operational procedures relate to choice of dictionary and polyword list, i.e. each language requires its own dictionary and list of polywords.

# 7.5 Application of Scandinavian MIPVU

To determine whether we could apply more or less the same procedure to all three languages, we analyzed discourse in Danish, Norwegian and Swedish. We opted for a text type and topic that would allow us to easily find parallel texts for MIPVU analysis: two newspaper articles per

variety about the consequences of the then-fresh Brexit referendum, found in online quality newspapers from Denmark, Norway and Sweden. All in all, three researchers identified linguistic metaphors in slightly more than 4,000 words of Scandinavian text in two rounds of analysis.<sup>8</sup> Following the work of the Pragglejaz Group (2007), this was done individually with sessions involving group discussions of the data in order to resolve inter-rater discrepancies whenever such was possible (henceforth referred to as 'pragglejaz sessions'). Prior to our work with the Scandinavian texts, we also analyzed two English newspaper articles about Brexit and compared inter-rater reliability, to ensure that we shared a mutual understanding of the original MIPVU; this work is documented in Chapter 3 in this volume (from p. Feil! Bokmerke er ikke definert.). Here in the current section, we present the application of Scandinavian MIPVU to discourse, taking examples from our data.

We first illustrate a typical case of analysis using Scandinavian MIPVU, 'typical' in the sense of comprising a lexical unit that corresponds to an orthographic word: instantiations in Danish, Norwegian and Swedish of the translation correspondent for the English verb 'stand'. These examples allow us to demonstrate how the same basic procedure may be applied to the three languages, and screenshots of the three relevant section of the various dictionary entries serve to give readers a sense of their differences; see examples with MIPVU analysis in Danish (example 1), Norwegian (example 2), and Swedish (example 3). Each analysis is immediately followed by screenshots of the relevant dictionary entries for the lexeme in the language in question. Note that the translation of 'stand' in all three languages is *stå*; the verb and its translation correspondents are italicized in the illustrative sentences.

(1) Jeg stå-r med sådan en følelse af et stand-PRS with a.ART.INDF.COM<sup>9</sup> feeling I such of a.ART.INDF.N tab. Loss. (Danish) 'I have such a feeling of loss.'

Stå

<sup>&</sup>lt;sup>8</sup> A list of the articles selected for analysis is available as supplementary material at this volume's Open Science Framework website; see the Chapter 7 folder at https://osf.io/vw46k/.

<sup>&</sup>lt;sup>9</sup> Note that the masculine and feminine genders have merged into a common gender in both Danish and Swedish, hence *COM* in the translations.

**Contextual meaning**: In this context, the meaning of Danish *stå* corresponds to DDO1b "to find oneself in a particular situation or condition"; see Dictionary entry 1.

Basic meaning: The basic meaning is DDO1 "to hold the body in an upright position"

**Contextual 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 being in an abstract situation in terms of a physical position; see Dictionary entry 2.

#### Metaphorically used? Yes.

**1.b** OVERFØRT befinde sig i en bestemt situation eller tilstand, fx i forhold til en forestående handling eller et fremtidigt forløb

GRAMMATIK NOGEN/NOGET står +ADVERBIAL/+ADJEKTIV

 EKSEMPLER
 stå klar/parat
 I
 stå tavs
 I
 stå på lur
 I
 stå stærkt/svagt

 Image: I

🗵 🛛 stå ansigt til ansigt med 🗵 🗍 stå uforstående over for 🗵

Det er nødvendigt, at du tilpasser dig omgivelsernes ønsker – ellers kommer du til at stå temmelig alene <u>SeHør1983</u>

14.000 unge står i øjeblikket uden praktikplads DR1992

**Dictionary entry 1**. From the DDO, the contextual meaning of the Danish verb *stå*: 'to find oneself in a particular situation or condition'. Note that the dictionary notes the contextual meaning as *overført* 'transferred/figurative'.

 holde kroppen i oprejst, lodret stilling i hele sin længde mens vægten hviler på strakte ben; opholde sig et sted i en sådan stilling

```
      SE OGSA
      ligge | sidde | stå op

      BESLÆGTEDE ORD®ETA
      ...vis

      GRAMMATIK
      NOGEN står (+ADVERBIAL) | NOGEN står op | almindelig i præsens
participium brugt som adjektiv

      EKSEMPLER
      stående stilling ℝ | stå i kø ℝ | stå stille ℝ | stå ubevægelig ℝ |
stå forrest ℝ | stå i døren ℝ | stå tavs ℝ | stå tæt ℝ | stå på benene ℝ |
stå på gulvet ℝ | stå med ryggen til ℝ | stå længe ℝ | komme op at stå ℝ

      Frøken Danielsen stod oppe på gangen udenfor klasseværelserne og så ned på
legepladsen AltDam1990

      Jeg stod som forstenet. Far var altså død Hjemm1992

      om dyr hunden stod glad og logrede FamJour1988
```

- **Dictionary entry 2**. From the DDO, the basic meaning of the Danish verb *stå*: 'hold the body in an upright position'
  - (2) Bygg-verk-et stå-r i fare for å bryte
    building-works-ART.DEF.N stand-PST in danger for to break.INF sammen.
    together (Norwegian)
    'The construction is in danger of collapsing.'

Stå

- **Contextual meaning**: In this context, the meaning of Norwegian *stå* corresponds to BmO (unnumbered) "to be in a particular situation or condition"; see Dictionary entry 3.
- **Basic meaning**: The basic meaning is BmO1 "to be in an upright position"; see Dictionary entry 4.
- **Contextual 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 being in an abstract situation in terms of a physical position.
- Metaphorically used? Yes.

 være i en viss tilstand nå står det til deg nå er det opp til deg / stå i fare for å miste noe / livet stod ikke til å redde / stå for tur / stå for fall / det står bra til / subjektet står i flertall / dermed stod det 1–1 var stillingen 1–1 / stå i lys lue, i blomst, i stampe / stå ferdig / huset står tomt / årsveksten står bra i år / stå godt rustet

Dictionary entry 3. From BmO, the contextual sense of the Norwegian verb stå: 'be in a particular

condition'

stå

III stå verb (norr. standa, infinitiv stå og presens står kanskje påvirkning fra østnordisk og lavtysk )
 1 være i oppreist stilling

Nære i oppreist stilling hopperen var ustø i nedslaget, men stod holdt seg på beina / stå bunnen nå bunnen med beina / stolpen står på skrå / trærne stod tett i tett / det stod skap langs veggene / boka står i bokhylla / stå og fundere på noe / stå på hodet / stå på kne / folk måtte stå på bussen / stå på beina

Dictionary entry 4. From BmO, the basic meaning of the Norwegian verb stå: 'be in an upright position'

(3) Båda länderna stå-r utanfor eurozon-en.
both country.PL stand-PST outside Eurozone-ART.DEF.COM (Swedish)
'Both countries are outside the Eurozone.'

## Stå

- **Contextual meaning**: In this context, the meaning of Swedish *stå* corresponds to SO (unnumbered) "to hold oneself"; see Dictionary entry 5. The entry's illustrative examples of the verb indicates that one 'stands outside' something abstract.
- **Basic meaning**: The basic meaning is SO1A "hold oneself upright on one's legs"; see Dictionary entry 6.

**Contextual 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 being in an abstract place in terms of a physical position.

#### Metaphorically used? Yes.

ζ) i uttr. stå utanför (utan efterföljande bestämning), stundom äv. stå utom, hålla sig l. hållas utanför l. hålla sig borta l. ute från l. vara utestängd från gemenskap l. umgänge l. hållas ovetande om ngt o. d.; icke vara med i l. medlem av sammanslutning l. institution o. d. Vid storaffärer som denna är det säkrast att stå utanför. Nicander lär .. vara försupen, såsom vi, hvilket väl går an, sedan man kommit in i Akademien, men ej så länge man står utanför. BESKOW (1836) i 3SAH XLVII. 2: 85. (Kungen) citerade mig för att förmildra det ogillande, som han befarade, att hans oförsiktighet (*i en utrikespolitisk fråga*) skulle väcka, om det tillika kunde sägas, att hans officiella rådgifvare stått alldeles utanför. DE GEER Minn. 1: 267 (1892). En polis .. stod och tittade på mig .. så sa han: Fy fan, vad en sån där skulle ha mycket smörj .. då kände jag hur det var att stå utanför och ha alla emot sig. GUSTAF-JANSON ÖvOnd. 56 (1957). Han står helt utom i denna fråga. ÖSTERGREN 9: 584 (1966).

**Dictionary entry 5.** From SO, the contextual meaning of the Swedish verb *stå*: 'in the expression "stand outside", meaning "to hold oneself"

**I.** om person (äv. om sak i personifierad anv. l. i metonymisk anv. för person(er) o. d.) l. personligt väsen l. djur.

**A.** hålla sig upprätt på sina ben, uppehålla sig ngnstädes i denna ställning, o. i oeg. l. bildl. anv. som jämförelsevis nära ansluter sig härtill.

**Dictionary entry 6.** From SO, the basic meaning of the Swedish verb *stå*: 'hold oneself upright on one's legs'

These three cases involving the verb sta in the Danish, Norwegian and Swedish discourse thus demonstrate how Scandinavian MIPVU may successfully be applied to the three languages in nearly identical ways. The main difference lies in the etymological details included in the three online dictionaries. As we note in example (3), for example, determination of the contextual sense of Swedish *sta* requires consultation of the illustrative example provided, whereas both the Danish and Norwegian contextual senses may be determined through reference to the definitions alone – even though illustrative examples are also provided and may prove helpful.

A further example of the application of Scandinavian MIPVU is the reflexive verb in example (4), found in the Danish material in our data. All three Scandinavian dictionaries that we have used treat reflexive verbs in varying ways: sometimes they are given individual entries, sometimes they appear in illustrative sentences in an entry defining the main verb, and

sometimes they are completely absent. We contend that this treatment is reflective of the nature of the dictionaries, and thus choose to treat all reflexive verbs as single lexical units, regardless of codification (see section 7.3.2).

(4) Det ha-r manifestere-t sig med de seneste
It have-PRF manifest-PTCP itself with the.ART.DEF.PL latest
tre folke-afstemning-er.
three person.GEN-vote-PL. (Danish)
'It [skepticism to the EU] has manifested itself in the last three popular elections.'

When it comes to reflexive verbs, we have identified their basic senses through reliance upon its dictionary entry, if there such an entry exists. If not codified as a reflexive verb, their basic sense is identified through consultation of the dictionary entry for the main verb, since the meaning of the main verb then corresponds to that of the reflexive verb. As an example, Danish *manifestere sig* ('manifest itself') from example (4) is not codified in the DDO as a reflexive verb. We therefore look to the dictionary's entries for the main verb *manifestere* ('manifest') to help determine metaphorical status, as follows:

#### Manifestere sig

- **Contextual meaning**: In this context, the meaning of Danish *manifestere sig* corresponds to DDO 1 for the main verb: *tilkendegive noget klart og tydeligt fx en holdning eller et standpunkt* ('to express something clearly, for example an attitude or a position').
- **Basic meaning**: The basic meaning is DDO2 for the main verb: *komme til udtryk i fysisk eller konkret form* ('to be expressed in physical or concrete form').
- **Contextual 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 expressing an abstract idea (such as skepticism from example (4)) in terms of expressing something in physical form (such as the DDO's illustrative example of light that appears as wave or particle movement).

#### Metaphorically used? Yes.

Finally, we present an analysis of a relatively rare type of Scandinavian compound consisting of both spaced and hyphenated elements: *Vote Leave-kampanjen* ('Vote Leave campaign').

Example (5) stems from the Swedish component of our data, and is the only such compound we ran across in our analysis.

(5) den officiell-a Vote Leave-kampanje-n
the. ART.DEF.COM official-ART.DEF.COM vote-leave-campaign-ART.DEF.COM
(Swedish)
'the official Vote Leave campaign'

The Scandinavian MIPVU protocol considers this type of construction to be a single lexical unit for the purposes of metaphor identification, despite the spaced element in the compound. Moreover, for compounds that are not codified in the dictionary, metaphor is identified through dictionary consultation of the entries for the constituent elements of the compound; if any of these elements are metaphorical in use then the entire compound is marked as metaphor.

The compound *Vote Leave-kampanjen* is an example of a non-codified compound. As it is not included in the Swedish dictionary (SO), we are required to look up the definitions for its three individual elements: *vote, leave,* and *kampanje*. The first two elements, however, add an extra complication. They have been borrowed directly from English, and are not codified in the Swedish lexicon at all. Such borrowing, especially from English as we see here, is not uncommon in Scandinavian texts. Our solution is to analyze such English words through application of the original version of MIPVU, with Macmillan (MM) and Longman (LM) as our reference tools, as follows:

#### Contextual meaning: In this context,

- the meaning of *vote* in the compound *Vote Leave-kampanje* corresponds to MM1
   'to formally express an opinion by choosing between two or more issues, people, etc.'
- the meaning of *leave* in the compound *Vote Leave-kampanje* best corresponds to LM2 'if you leave your job, home, school etc., you permanently stop doing that job, living at home etc.'
- the meaning of *kampanjen* in the compound *Vote Leave-kampanje* corresponds to SO (unnumbered) *intensive verksamhet under viss tid i avsikt att påverka* ('intensive operation for a certain time with the intention to influence').
- **Basic meaning**: The basic meanings of both *vote* and *kampanje* correspond to their contextual meanings. The basic meaning of *leave* corresponds to MM1 'to go away from a place'.

**Contextual vs. basic meaning**: The contextual meanings of *vote* and *kampanje* do not contrast with their basic meanings. The contextual meaning of *leave* does contrast with the basic meaning, but the relationship between the two can be viewed in terms of contiguity rather than comparison. The relationship between a physical place and an institution is metonymical.

Metaphorically used? No.

#### 7.6 Reliability results

As explained in section 7.5, three researchers – the authors of this chapter – applied Scandinavian MIPVU to six newspaper articles, two in Danish, two in Swedish and two in Norwegian. This analysis was carried out in two rounds, with a pragglejaz session in-between to discuss any discrepancies. The present section presents our inter-rater reliability results. Section 7.6.1 presents our agreement with respect to determination of lexical units, the second step of the procedure where analysts demarcate the unit of analysis. Section 7.6.2 goes on to present our agreement concerning the metaphor-related status of each identified lexical unit.

#### 7.6.1 Demarcation of lexical units

After our first independent round applying Scandinavian MIPVU to the newspaper discourse, our inter-rater reliability with respect to demarcation of lexical units indicated strong agreement for the Scandinavian material as a whole. Looking at our inter-rater reliability for the individual languages, we find strong agreement for both Danish and Norwegian, but only moderate agreement for Swedish. For all cases, the inter-rater reliability measures between the three pairs of analysts (1:2, 1:3 and 2:3) ranged from moderate to near perfect, with the least agreement consistently being between Analysts 2 and 3. The specific inter-rater reliability measures for agreement between the three analysts are given in Table 1, along with the corresponding measures for the second round of analysis.<sup>10</sup>

<sup>&</sup>lt;sup>10</sup> Fleiss' Kappa was calculated for three raters, while Cohen's Kappa was calculated for two raters. As McHugh (2012) suggests, the value of kappa was interpreted as indicating the following level of agreement: 0-0.20 *none*; 0.21-0.39 *minimal*; 0.40-0.59 *weak*; 0.60-0.79 *moderate*; 0.80-0.90 *strong*, above 0.90 *almost perfect*. The kappa measure and confidence intervals were calculated using the 'boot' function, a bootstrap for the 'irr' package in R; see our references for the full citations for R, irr and the boot function. Our data and R code is available as supplementary material at this volume's Open Science Framework website, along with a suggested template for MIPVU analysis in Scandinavian; see the Chapter 7 folder at https://osf.io/vw46k/.

Our overall strong initial agreement leads us to conclude that our decision to allow for few exceptions to the general rule of equating the lexical unit with the orthographic rule to be wise (see section 7.3.2). Any sort of exception all too easily leads to discrepancies between analysts, over and above the occasional oversight caused by simple human error when dealing with metaphor identification of thousands of words. Most of our discrepancies concerning demarcation of lexical units were resolved by a pragglejaz session that was followed by second, individual reviews in our database of those cases where we had disagreed in our first look at the data.

Inter-rater reliability measures of our decisions after this second round of analysis show greater rates of agreement. For the Scandinavian data as a whole, we were able to reach near perfect agreement about the demarcation of lexical units in all three languages/data sets. Looking at the individual language varieties, our agreement rate for both Norwegian and Swedish was strong, while agreement about Danish lexical units was almost perfect. Table 1 presents these inter-rater reliability measures, along with those from Round 1.

	Round 1			Round 2			
	S	к	95%	Interpretation	к	95 %	Interpretation
	No. of decisions (3 raters)		CI			CI	
Danish	<b>8 5</b> 1285	0.83	0.76	strong	1	1-1	perfect
Norwegian	1444	0.83	0.90 0.78-	strong	0.97	0.94-	almost perfect
Swedish	1428	0.77	0.88 0.69-	moderate	0.86	0.99 0.80-	strong
Scandinavian	4157	0.81	0.83 0.77-	strong	0.94	0.91 0.92-	almost perfect
			0.84			0.96	

Table 1 Inter-rater reliability for demarcation of lexical units

Laying the groundwork for metaphor identification by first clearly identifying the unit of analysis is important because precision in demarcating lexical units necessarily affects calculations of metaphorical density in a text. To illustrate this point, consider the figures in Table 2, which shows the number of lexical units identified in the Scandinavian texts as a whole, as well as in the text for each of the three languages, calculated after the two rounds of analysis.

	Analyst	Round 1:	Round 2:			
		Number of lexical units	Number of lexical			
			units			
Danish	1	1,259	1,259			
	2	1,267	1,261			
	3	1,264	1,261			
Norwegian	1	1,403	1,402			
	2	1,410	1,405			
	3	1,405	1,401			
Swedish	1	1,397	1,397			
	2	1,401	1,398			
	3	1,390	1,388			
Scandinavian	1	4,059	4,058			
	2	4,078	4,064			
	3	4,059	4,050			

Table 2 Number of lexical units identified by each analyst

We see here that while the calculated figures are close, the three analysts never completely agree about a final tally of the numbers of lexical units in any of the languages. The differences narrowed as a result of our pragglejaz session where we explicitly explored all initial differences in analysis, often related to identification of polywords (see section 7.3.2). But discrepancies remain even so, ranging from a difference of three lexical units in Danish to ten in Swedish. What this means is that, assuming an equal number of identified MRWs by each analyst, the resulting metaphorical density would be viewed as higher in the Swedish texts of Analyst 3 than in the (identical) Swedish texts of the other two analysts, simply because the former identified more multiword units as single lexical units than the others did. Such an effect would be multiplied as text length under analysis increases. We therefore want to underline the importance of pragglejaz sessions, because such discussion sessions facilitate a common understanding not just of the identification of metaphorical status, but also of the determination of lexical units – an area that might not otherwise be recognized as potentially problematic.

#### 7.6.2 Identification of metaphor-related words

Table 3 presents measures for our inter-rater reliability agreement with respect to identification of metaphor-related words – that is, the degree of agreement between us for our codings about the metaphorical status of all the lexical units in our data in both rounds of analysis. Note that the three language varieties are fairly equally represented in the overall 'Scandinavian' variety, with 31% lexical units analyzed being Danish, 35% Norwegian and 34% Swedish. All in all, each analyst coded each lexical unit with one of seven possibilities: 1) not metaphor, 2) indirect metaphor, 3) direct metaphor, 4) implicit metaphor, 5) metaphor flag, 6) DFMA or 7) WIDLII. Note that the 'DFMA' code was selected only a single time, for the lexical unit *kommentar* 'comment', a word functioning in one of the Swedish articles as metalanguage, rather than being integrated into the article's text.

		Round 1			Round 2		
		к	95%	Interpretation	к	95 %	Interpretation
	No. of decisions (3 raters)		CI			CI	
Danish	1285	0.78	0.75-	moderate	0.92	0.91-	almost perfect
			0.81			0.94	
Norwegian	1444	0.79	0.76-	moderate	0.90	0.88-	strong
			0.82			0.92	
Swedish	1428	0.77	0.74-	moderate	0.87	0.87-	strong
			0.80			0.91	
Scandinavian	4157	0.78	0.76-	moderate	0.90	0.89-	almost perfect
			0.80			0.91	

Table 3 Inter-rater reliability for determination of metaphor-related words

One of the major issues affecting our agreement during the first round of analysis was our treatment of prepositions. Fourteen percent of the lexical units in our Scandinavian text consisted of prepositions – that is, 567 out of 4,057 lexical units. The results from our first round of analysis show that we initially disagreed about the metaphor-related status of 155 of the total of 567 prepositions encountered, almost one third of them (ranging from a low of 23%)

in the Danish articles to a high of 33% in the Swedish articles). Moreover, these 155 prepositions represent 28% of the total (562) number of disagreements among us about metaphor-related status in the first analysis round. What this means is that reaching an understanding of how to code prepositions for metaphor is important in order to maintain a high degree of inter-rater agreement.

Previous research has found prepositions to be the most metaphorical word class of all, at least on the linguistic level (Nacey 2013: 146-147; Steen et al. 2010: 202-203). On the level of communication, however, they are rarely perceived as metaphorical; in other words, the fact that a linguist may be able to analyze a particular preposition as metaphorical in use in a given context does not make that metaphoricity any more salient for interlocutors as they communicate with one another. We found that this same tendency of overlooking the metaphorical nature of prepositions sometimes manifested itself in our initial independent analyses. In our material, prepositions constituted the group that were the most likely to be incorrectly marked as not metaphorical; in most cases, these miscodings amounted to inadvertent oversights that were easily cleared up during our pragglejaz session.

Two prepositions, however, warranted closer inspection: the Scandinavian translation equivalents for the prepositions *of* and *for* (*of* = *af* in Danish, *av* in Norwegian and Swedish; *for* = *for* in Danish and Norwegian, *för* in Swedish). In the original MIPVU protocol for English, these prepositions are never marked as metaphorical in use. The MIPVU developers explain that while the basic meanings of the majority of prepositions have clear spatial meanings, both *of* and *for* were considered to be delexicalized prepositions "exhibiting a problematic distinction between basic and other senses" (Kaal 2012: 115-116; see also Krennmayr 2011: 38).<sup>11</sup> This decision may be significant for the calculated metaphorical densities of texts, as these two prepositions are among the most frequent members of a frequent word class (see e.g. Dorst 2011: 169; Nacey 2013: 137-138).

During our first round of analysis, each researcher tackled the question of how to codify *of* and *for* for metaphor analysis, each in her own way. Results showed that this led to some discrepancies in coding, as we were perhaps overly influenced by the contradiction between the decision made for English discourse to overlook them, even though the semantics of the Scandinavian equivalents do not appear to be as watered down as in English. How to code these prepositions thus became one of the specific topics discussed during our group pragglejaz session, leading to the following guidelines for future analysis: For *for/för* the basic sense is 'in

<sup>&</sup>lt;sup>11</sup> Note that Nacey (2013: 137) disagrees with this contention.

front of' (as in the Swedish SO example *en gardin för ett fönster* 'a curtain for a window', meaning 'a curtain in front of a window'). The prepositions *af/av* have two concrete senses that we treat as equally basic: 'in the direction away from', as in the Norwegian BmO example *falle av hasten* 'fall of the horse' (meaning 'fall off the horse'), and 'made of/consisting of' as in the Danish DDO illustrative example *hendes håndtaske af sort læder* 'her purse of black leather' (meaning 'her black leather purse').

#### 7.7 Concluding remarks

This study has demonstrated that it is possible to apply a more or less identical MIPVU procedure to Danish, Norwegian, and Swedish. Despite the variations among the three languages, our inter-rater reliability proves that proficient speakers of the three languages may use Scandinavian MIPVU to obtain similar results with regard to both lexical demarcation and identification of potential linguistic metaphors. We maintain that an important contributing factor to high inter-rater reliability is simplification, with as few exceptions to general rules as possible. For instance, in the case of Scandinavian MIPVU, we recommend treating only reflexive verbs and polywords as exceptions to the general rule of equating the single lexical unit with the orthographic word.

Our procedure, while mainly identical for Danish, Norwegian and Swedish, does, however, call for minor variations when dealing with the different languages. For the analysis detailed in the present chapter, we have identified one dictionary per language that may be used, all of which have the advantages of being available online and developed by reputable language institutions. One area for a future expansion of the Scandinavian MIPVU is to extend it to the *nynorsk* variety of Norwegian, in addition to the *bokmål* variety we tested; this would require a fourth online dictionary, but there already exist good candidates for dictionaries and we anticipate no real problems. It should be noted, however, that the available choice of dictionaries in no way matches that for English, where there is a great number of corpus-based learners' dictionaries to choose from.

One final procedural difference in the application of MIPVU to the three languages concerns polywords, as each variety necessarily has its own list of polywords. That said, our suggested lists are only preliminary attempts at compilation, rather than definitive and finalized proposals. Further research into this area is required, to compile clearly defined and comparable polyword lists for the Scandinavian varieties.

## References

- Braunmüller, K. (2002). Semicommunication and accomodation: Observations from the linguistic situation in Scandinavia. *International Journal of Applied Linguistics*, 12(1), 1-23.
- Canty, A., & Ripley, B. (2015). boot: Bootstrap R (S-Plus) Functions. R package version 1.3-17.
- Delsing, L.-O., & Åkesson, K. L. (2005). Håller språket ihop Norden?: En forskningsrapport om ungdomars förståelse av danska, svenska och norska. *TemaNord*, http://norden.divaportal.org/smash/get/diva2:700762/FULLTEXT01.pdf
- Dorst, A. G. (2011). *Metaphor in fiction: Language, thought and communication*. Doctoral dissertation, Vrije Universiteit Amsterdam. http://dare.ubvu.vu.nl/handle/1871/19629
- Gamer, M., Lemon, J., & Singh, I. F. P. (2012). irr: Various Coefficients of Inter-rater Reliability and Agreement, R package version 0.84. http://CRAN.Rproject.org/package=irr
- Hanks, P. (2013). Lexical analysis: Norms and exploitations. Cambridge, MA: MIT Press.
- Haugen, E. (1966). Semicommunication: The language gap in Scandinavia. Sociological Inquiry, 36(2), 280-297.
- Kaal, A. A. (2012). *Metaphor in conversation*. Doctoral dissertation, Vrije Universiteit Amsterdam. http://dare.ubvu.vu.nl/handle/1871/32987
- Krennmayr, T. (2011). *Metaphor in newspapers*. Doctoral dissertation, Vrije Universiteit Amsterdam. http://dare.ubvu.vu.nl/handle/1871/19774
- McHugh, M. L. (2012). Inter-rater reliability: The kappa statistic. *Biochem Med* 22(3), 276-282.
- Nacey, S. (2013). Metaphors in learner English. Amsterdam: John Benjamins.
- Nattinger, J. R., & DeCarrico, J. S. (1992). *Lexical phrases and language teaching*. Oxford: Oxford University Press.
- Pragglejaz Group (2007). MIP: A method for identifying metaphorically used words in discourse. *Metaphor and Symbol*, 22(1), 1-39.
- R Core Team. (2013). R: A language and environment for statistical computing. Vienna, Austria: R Foundation for Statistical Computing.o http://www.R-project.org/
- Språkrådet. (n.d.). Norsk. http://www.sprakradet.no/Spraka-vare/Spraka-i-Norden/Norsk/

- Steen, G. J., Dorst, A. G., Herrmann, J. B., Kaal, A. A., Krennmayr, T., & Pasma, T. (2010). A method for linguistic metaphor identification: From MIP to MIPVU. Amsterdam: John Benjamins.
- Torp, A. (1998). Nordiske Språk i Nordisk og Germansk Perspektiv. Oslo: Novus forlag.
- Torp, A. (2004). Nordiska språk i forntid och nutid: Språklikhet och språkskillnad, språkfamiljer och språksläktskap. In I. S. Sletten (Ed.), *Nordens Språk med Rötter och Fötter* (pp. 19-74). Århus: Akaprint.
- Universitet i Bergen & Språkrådet. (2017a). *About the dictionaries*. http://ordbok.uib.no/info/om\_ordbokene\_en.html
- Universitet i Bergen & Språkrådet. (2017b). *Hvorfor får du ikke tilslag?* http://ordbok.uib.no/info/ikke\_tilslag\_bm.html