Investigating fluency variables in learner language: Methodological concerns

This paper discusses methodological concerns related to the identification and analysis of fluency variables in studies of spoken native and interlanguage corpora. The specific focus here is pause behaviour observed in relation to interlanguage fluency, an area that has received growing attention in recent years. The paper addresses the following research question: How can a spoken learner corpus be compiled to make valid claims about utterance fluency variations?

Pauses, like other phenomena associated with hesitation, can be "welcome as overt, measurable indications of processing activity which requires a certain amount of time" (Chafe 1980, p. 170). The frequency and duration of pauses can be studied independently as potential hesitation phenomena, but pauses are also an important component of other variables often measured in fluency research, such as mean length of run (MLR) and phonation-time ratio. These measures are viewed as *utterance fluency* variables in Segalowitz' (2010) trifold definition of second language fluency, described as any observable feature of the utterance that can potentially indicate a speaker's ability to process language (*cognitive fluency*), and/or affect listeners' perceptions of the same speaker's fluency level (*perceived fluency*):

> "it is not possible to globally characterize a person's L2 speech as "fluent" in some unidimensional, absolute fashion. All that one can say at this point is that under such and such circumstances a person's L2 speech has certain objectively measurable characteristics and that these can be interpreted by listeners to be fluent or dysfluent in particular ways" (Segalowitz, 2010, p. 39).

Contrastive studies of native and interlanguage speech production (e.g. Ginther et al., 2010;Götz, 2013) typically reveal between-group differences in measurements based on pause identification, and these differences are often seen as "fluency gaps" (Segalowitz, 2010), reflecting differences in the cognitive fluency levels of the speakers when processing the language. Conclusions about interlanguage fluency from such studies necessarily rest upon the transcriptions and annotations of the spoken language under study, e.g. that the pauses analysed reflect what was actually said (or not said, in the case of unfilled pauses). Consequently, in studies based on transcription data, views of pause behaviour across languages may easily be constrained by the choices made at the transcription stage of spoken corpus compilation. A valid and reliable transcription of pauses in spoken language – in particular conversational data – requires overt consideration of a number of issues that may not be immediately obvious. These include (a) the presence of initial silences, (b) pauses that occur in conjunction with overlapping speech and backchanneling, and (c) end-of turn pauses (when does a turn end?). As observed by Du Bois et al. (1992), "in some cases, the question of who a pause belongs to, how long it lasts, and even whether it has occurred in a specific place, become subtly and inextricably linked to the interpretation of turn-taking and overlapping between speakers" (p. 42).

In an attempt to bring this perspective to the forefront, we present examples from our data to illustrate the various challenges involved. Our point of departure is the compilation of two related spoken corpora: The unpublished Norwegian version of the Louvain International Database of Spoken English Interlanguage (LINDSEI) (Gilquin, De Cock, & Granger, 2010), and its smaller counterpart (NorwC) consisting of interviews with some of the same speakers speaking in their L1 Norwegian (*NL1,* cf. Gilquin (2008)). Based on a close analysis of the transcription of pause behaviour in six interviews, the paper argues that speech production as a whole should not be considered in isolation, and that utterances should not be viewed as

independent from their immediate co-text. It suggests alternative transcription conventions, involving the segmentation into turns and utterances according to a set of criteria which includes discriminating between contributing and non-contributing utterances (cf. Linell & Gustavsson, 1987). The segmentation approach presented here is a step towards combining a dialogical analysis with an exploration into a specific utterance fluency variable, which in turn may contribute to a more valid description of fluency variations, and a more comprehensive view of fluency in both native and interlanguage speech.

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