

Focus as a discourse functor

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We explore how the discourse contribution of focus can be analyzed in a framework based on predictability. In particular, we argue that focus facilitates the processing of unexpected expressions. It hence assists in keeping up discourse fluency. We suggest that our account is compatible with semantic theories of focus based on alternatives, such as Rooth (1992).

Focus has been a central notion of information structure for a long time. However, most theories of focus either consider its semantic (e.g. Rooth, 1992) or syntactic (e.g. Rochemont, 1986) impact. So far, little work has been done that investigates the importance of focus for overall discourse structure. Notably, focus has been attested to play a crucial role in the establishment of question-answer congruence (Roberts, 2012; Rooth, 1992). This is in line with empirical findings. As of now, answers to wh-questions are the only context in which focus could reliably and consistently be elicited in controlled experimental set-ups (e.g. Cooper et al., 1985; Xu, 2005). In the following, we will restrict our attention to wh-questions that are inquisitively sincere in the sense of Ciardelli et al. (2012). Inquisitive sincerity basically means that the person asking a question does not already know the answer. This excludes rhetorical questions, for example. A person asking an inquisitively sincere wh-question is very unsure about the answer and does likely not have any concrete expectation regarding what the answer might be. Therefore, it will be relatively hard for that person to predict the wh-correlate within the answer. Unpredictability of an expression leads to greater processing costs of that expression. This is a reasonable assumption as it has been shown that unexpected events in general lead to greater neural activity (Berns et al., 2001).

What leads us to suspect that focus enhances discourse fluency are the empirical findings of Cooper et al. (1985) and Xu (2005). They have shown that besides pitch, syllable duration is one of the most important features of focus marking in languages which employ prosodic means to encode focus (such as the Germanic and Romance languages). More recently, word duration has been connected to the predictability of words in contexts (e.g. Bell et al., 2009; Gahl et al., 2006). By lengthening the duration of the focused word, the listener is given more time to analyze its meaning and make sense of it in the given context. This idea is further supported by recent computational results which show that duration also gives useful information about a word's status on the sentence level (Pate and Goldwater, 2013). Note that focus is a linguistic tool that speakers employ automatically and therefore no voluntary intention of word lengthening should be ascribed to the speaker. However, since durational lengthening gives the listener more processing time and thereby enhances the discourse flow, this

aspect of focus marking has found its way into many languages. Moreover, even if a language does not make use of prosodic means to mark focus but instead uses affixation of morphemes (examples of such languages are reported in Hartmann and Zimmermann (2009)), this affixation likely elongates the duration of the focused word. Hence, the explanation of the discourse significance of focus in terms of predictability is fairly general.

Since the present account is a first step in a new research direction, it does not yet consider all aspects of focus marking (see Xu (2005) for a comprehensive overview of phonetic focus marking). Nevertheless, it already bears some implications for existing views on focus and discourse structure more generally. It strengthens the by now classical view that focus involves alternatives. Under the current view, the presence of alternatives follows straightforwardly from the unexpectedness of the word under focus. If an expression is unexpected there certainly are alternatives to it. Our proposal by no means assumes these alternatives to be concrete but the mere presence of alternatives suffices to make any expression less predictable.

The view of focus as a discourse functor presented here also offers a new perspective on information structure. Rather than looking at its syntactic and semantic effects, we investigate how it helps speakers to communicate successfully. Our predictions are easily testable using widely available corpus data. Such an evaluation will be undertaken in the near future.

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