**Prosodic effects of implicit causality in German and Norwegian?**
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**Introduction.** The phonetic realization of personal pronouns is constrained by a number of factors. According to centering theory, for instance, pronouns are de-accented whenever the pronoun co-refers with the subject [1]. Likewise, topic shift and (contrastive) focussing should lead to the accentuation of pronouns. In this paper, we investigate whether a subtle semantic/pragmatic property of verbs, implicit causality (IC), may override such well-known constraints for pronominal accenting.

IC verbs are well-known from psycholinguistic studies of anaphora resolution, cf. (1):

(1) a. Mary impressed Jane because she always knew what to say.
    b. Mary admired Jane because she always knew what to say.

Although the pronoun *she* is in principle ambiguous in (1a-b), a great number of studies have found clear preferences for anaphora resolution in this type of sentences [2]: Stimulus-experiencer verbs such as *impress* (1a) lead to a preference for anaphoric reference to the subject (*Mary*), whereas experiencer-stimulus verbs like *admire* lead to a preference for reference to the direct object (*Jane*). These preferences – referred to as subject and object bias, respectively – are semantically grounded in different strategies for explaining the situation denoted by verbs such as *impress* and *admire*. However, these constraints may be overridden, given the right context (cf. the experimental items below).

**Design of the study.** We investigated whether violation of a verb’s reference bias in German and Norwegian would lead to a marked accentuation of the pronoun. This would go counter general principles assumed in e.g. centering theory.

Ten German and ten Norwegian subjects read aloud nine short texts in their native language. The texts consisted of an introductory context introducing both referents with equal prominence, a target sentence as in (2a) or (2b) and a concluding sentence. Each test item was preceded by two filler texts and followed by a question about the referents in the target sentence.

(2) a. Brian admires John because he always stands up for his colleagues at these meetings.
    b. Brian admires John because he’d never dare to stand up for his colleagues at these meetings.

Violation of the verb’s reference bias (object bias for *admire*) was introduced by using two different subclauses in the target sentence: Whereas (2a) is congruent with the bias (*he=John*), (2b) is incongruent with the bias (*he=Brian*). Similarly, test items with the verb *impress* (subject bias) and *beat up* (no preference) were constructed.

**Results.** Some speakers prevent the semantic ambiguities by varying prosody, either by contrastive accentuation on the pronoun in the subclause or by emphasizing the referent in the main clause. Other subjects did not accentuate the pronoun in any of the stimulus utterances, either because they had not understood the semantic implications or because they had overestimated their effectiveness and expected their addressees to understand their intentions more than was warranted (cf. [3]). Detailed results for inter-language and inter-speaker variation in relation to this general finding will be presented and discussed.

**References**