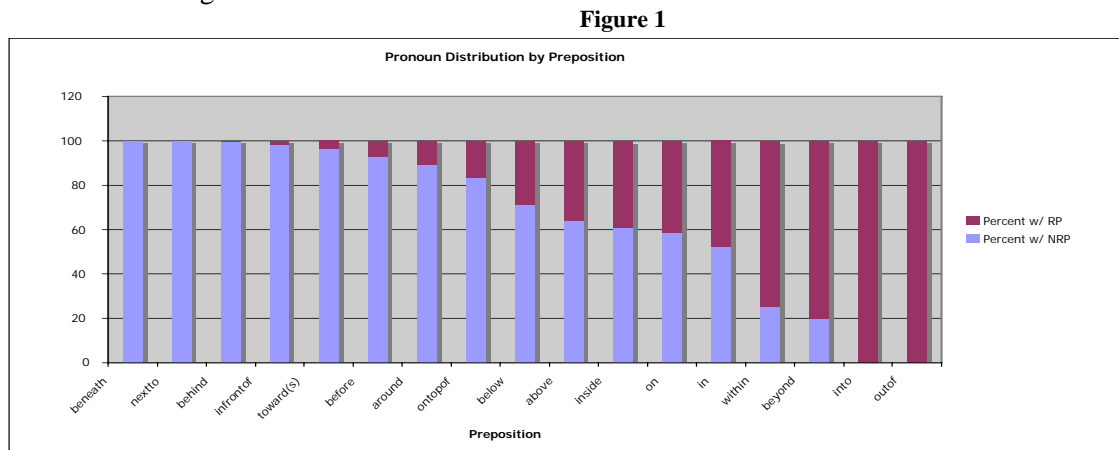


Anaphoric distribution in the prepositional phrase: Similarities between Norwegian and English

It has been noted that English directional prepositions pattern differently from locative prepositions with regard to anaphoric pronoun distribution (Weshler 1997). Sentence 1 shows a directional preposition occurring with the reflexive pronoun and 2 shows a locative, nondirectional preposition occurring with the nonreflexive pronoun:

- (1) He_i could have stuck pins into himself_i and it would have taken ten seconds for his body to complain. (BNC [FSP](#) 2109)
- (2) He_i put the opened bottle down next to him_i and smelled the top. (BNC [CA3](#) 641)

Previous studies on this topic have looked at small sets of author-generated examples. Based on an analysis of over 10,000 examples in the British National Corpus, I have confirmed directionality to be a factor in the unequal distribution of reflexive versus nonreflexive pronoun in PPs; pronouns with directional senses, such as *into*, *out of*, *on*, and *around*, have a higher rate of occurrence with the reflexive as indicated in Figure 1:



A semantically similar phenomenon exists in Norwegian. Because Norwegian nonreflexive pronouns have an anti-subject orientation, the Norwegian equivalent of 1b above is not possible; however, in Norwegian, the use of a reflexive versus a nonreflexive possessive pronoun interacts with the semantics of motion conveyed in the verb phrase. Tungseth (2003) shows that the choice of pronoun dictates whether the motion in the sentence will be interpreted as directional or nondirectional:

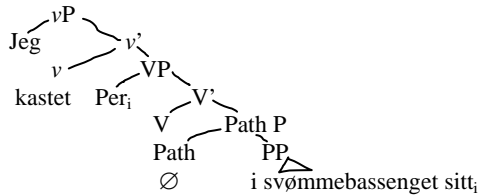
- (3) a. Jeg kastet Per_i i svømmebassenget sitt_i (directional). (Tungseth 2003:480 #12a)
I threw Per in swimming pool-DEF REFL
- b. Jeg kastet Per_i i svømmebassenget hans_i (locative). (Tungseth 2003:480 #12b)
I threw Per in swimming pool-DEF PRON

The sentence in 3a with the reflexive has only the directed motion reading, in which Per's trajectory starts outside the swimming pool and ends inside the swimming pool, while 3b with the nonreflexive is ambiguous between the directed motion reading and the located motion reading, in which the throwing event occurs within the confines of the pool.

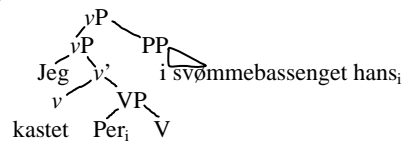
MacDonald (2004), analyzing English, and Tungseth (2003), describing Norwegian, argue that directional prepositional phrases differ structurally from nondirectional, locative PPs. Each author uses the *do-so* substitution test to suggest that goal PPs are complements of the verb, whereas locative PPs attach as adjuncts outside the VP. MacDonald does not detail how this analysis is carried out in the syntax. Tungseth, however, argues that the directed motion reading has a Path P complement with an

empty head located inside VP (shown in (4)) and the located motion reading attaches outside vP (shown in (5)):

(4) Directed Motion



(5) Located Motion



The analysis in my paper is twofold. Using Tungseth’s model with the Path P complement, I show how some of the English corpus data could be modeled upon the Norwegian data. The resulting structural account mimics the distribution predicted by Conditions A and B of binding theory. This account however does not generalize to all the real-world data, thus warranting a closer examination of how spatial relations interact with anaphoric distribution.

The generalization in English that a semantic notion of directionality accounts for the PP’s complement-like status has thus far, in standard accounts of binding theory, not been modeled in the syntax; however, by introducing the semantic notion of ‘path’ into the syntax, a structural account of the distribution in 1 and 2 is possible. The directional semantics of *into* in (1) motivate the PP to be represented as a Path P complement. As part of the VP, the reflexive pronoun in the directional PP is bound by the subject and Condition A is met. The nondirectional semantics of *next to* in (2) do not trigger the PP to be represented as a Path P complement, and it consequently attaches outside vP as an adjunct. Outside vP, the nonreflexive pronoun is free, and therefore Condition B is met. However, the details of this analysis become problematic when confronted with the full array of English corpus data. A prototypically nondirectional preposition such as *behind* can combine with certain verbs such as *throw* to form a seemingly directional motion as in *John_i threw the can behind him_i*. Likewise, directional senses of some prepositions such as *around* and *toward* pattern at a higher rate with the nonreflexive pronoun. If these PPs are always treated as complements, Condition B would predict a higher rate of reflexive pronouns. Building a vague notion of directionality into the syntax misses the details of the spatial relations portrayed in the semantics of the data.

The similarity the Norwegian data in (3) has to the English data in (1) and (2) is perhaps best described in terms of figure/ground relations (Langacker 2002), in which “a relational predication elevates one of its participants to the status of figure (p.9).” In this framework, the ‘trajector’ is the figure within the profiled relationship, and the ‘landmark’ is a distinct entity of secondary salience. The commonality shared in the two languages, shown in examples (1) and (3a), is that the reflexive is possible (in Norwegian) and preferred (in English) when the referent of the pronoun has a special relationship with the landmark in the sentence. In (3a), the use of the reflexive indicates that it’s referent, Per, at the end of his trajectory is spatially predicated to be in the landmark, the swimming pool. In (1), the reflexive is used and it’s referent, the person denoted by *He*, not only shares the same location as the landmark, but *is* the landmark in the sentence. In this framework, the varying distribution across preposition type shown in Figure 1 can be seen as a result of differing interpretations of the spatial relations among sentence participants.

From both a syntactic and a semantic perspective, the data presented in this paper suggest that spatial relations should play a significant role in understanding anaphora in Germanic languages.

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