

## The interaction of gender marking and perspective-taking in German

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**Introduction** This paper deals with a phenomenon regarding the interaction of perspective-taking with morphosyntactic gender that to the best of our knowledge has not been discussed in the literature so far: In *Free Indirect Discourse* (FID), the pronoun referring to the individual whose thoughts or utterances are rendered has to match the gender identity/biological sex (by default) of that individual rather than the morphosyntactic gender of the DP functioning as its immediate antecedent in discourse. We propose that the preference for semantic agreement in FID is due to increased empathy with the individual functioning as the perspectival center, leading to the expectation that the gender features of the pronoun are compatible with the perspectival center's expressive self-concept.

**Background** In German, nouns are obligatorily marked for gender (*feminine, masculine and neuter*) and in nouns denoting (sets of) humans there is generally a strong tendency for grammatical gender to match biological sex/gender identity. There are some exceptions to this tendency, however, such as the noun *Mädchen* (girl), which is grammatically neuter, but denotes female individuals, or the noun *Star* (genius), which is grammatically neuter, but denotes male as well as female individuals. While determiners and relative pronouns have to agree with the morphosyntactic gender of the noun with which they are combined (see (1a-d)), pronouns may in principle either agree with the morphosyntactic gender of the DP functioning as their antecedent (*grammatical agreement*) or with the gender identity/biological sex of the individual referred to by that DP (*semantic agreement*). In cases where the antecedent c-commands the pronoun (as in (2)) or is close to it in terms of linear distance (as in (3)), both the pronoun matching the morphosyntactic gender of the antecedent and the one matching the gender identity/biological sex of the antecedent's referent are fully acceptable (with individual speakers differing in their preferences).

- (1) a-d. Paul kennt das/\*die Mädchen, das/?die im fünften Stock wohnt.  
*Paul knows the<sub>neut</sub>/\*the<sub>fem</sub> girl who<sub>neut</sub>/?who<sub>fem</sub> lives on the fifth floor.*
- (2) Das Mädchen ist überzeugt, dass es/sie das Spiel gewinnen wird.  
*The girl is convinced that she/it will win the game.*
- (3) Das Mädchen betrat den Raum. Es/Sie trug einen roten Mantel.  
*The girl entered the room. It/She wore a red coat.*

In cases where the pronoun is further removed from its antecedent, in contrast, variants matching the gender identity/biological sex are clearly preferred over variants matching the morphosyntactic gender (Thurmaier 2006, Köpcke & Zubin 2009 and Panther 2009). In Hübner (2021) the influence of pragmatic factors such as the age of the referent, the importance of their biological sex/gender identity etc. in the context on the preferred variant are discussed. To this list of factors, we propose to add the perspective from which the individual is represented. We consider two well-known cases of perspective-shifting that have been argued to engage different mechanisms in establishing a non-speaker perspective: *Free Indirect Discourse* (FID) and *Viewpoint Shifting* (VS), also known as *Protagonist Projection* (PP).

**Perspective-shifting** Consider now the short text segments in (4a-d). The segments in (4a-c) all describe the same situation of a girl named Maria having the illusion of the ground shaking beneath her feet, while (4d) gives a neutral description of a minimally different situation in which the ground is actually shaking. In (4a), the illusion is rendered as a self-reflexively conscious thought via FID and in (4c) via indirect discourse (ID), while in (4b) it is rendered

via *Viewpoint Shifting* (VS) (Hinterwimmer 2017)/*Protagonist Projection* (PP) (Stokke 2013, 2021; Abrusán 2021), i.e. what she perceives is described in a way that is compatible with her doxastic state at the perceiving time, but there is no entailment or implication that a self-reflexively conscious thought is involved (see Hinterwimmer 2017 and Abrusán 2021 for detailed discussion).

(4) Maria war völlig fertig von der Fahrt auf dem stürmischen Meer. Das elegant gekleidete Mädchen stieg mit wackligen Beinen aus dem Boot.

*Maria was totally exhausted from the trip on the stormy sea. The elegantly dressed girl stepped out of the boat with shaky legs*

**FID**

a. Wahnsinn, der Boden schwankte wie verrückt unter <sup>?</sup>seinen/ihren Füßen! Zum Glück dauerte die Illusion nur einen Augenblick.

*Huh, the ground was shaking like mad beneath her/<sup>?</sup>its feet like mad! Luckily, the illusion lasted only a moment.*

**VS/PP**

b. Der Boden schwankte heftig unter <sup>?</sup>seinen/ihren Füßen. Zum Glück dauerte die Illusion nur einen Augenblick.

*The ground was shaking heavily beneath her/<sup>?</sup>its feet. Luckily, the illusion lasted only a moment.*

**ID**

c. ... und dachte für einen Augenblick, dass der Boden unter seinen/ihren Füßen schwanken würde. Zum Glück dauerte die Illusion nur einen Augenblick.

*and thought for a moment that the ground was shaking beneath her/its feet. Luckily, the illusion lasted only a moment*

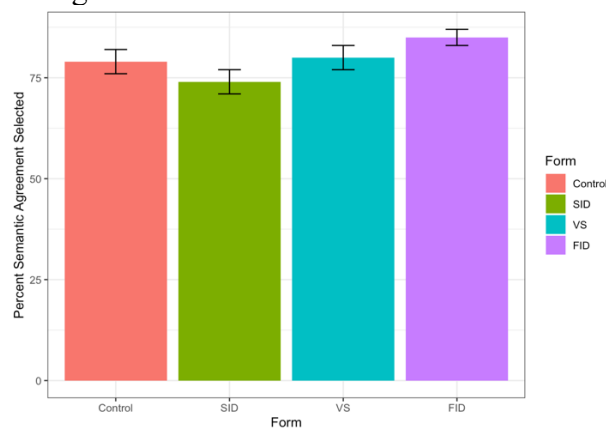
**Neutral**

d. Der Bootssteg schwankte wegen des Wellengangs heftig unter seinen/ihren Füßen. Zum Glück beruhigte sich das Meer nach wenigen Sekunden wieder.

*Due to the heavy sea, the boat bridge was shaking heavily beneath her/its feet. Luckily, the sea calmed down again after a few seconds.*

According to the second author's native speaker's intuitions, Maria can be picked up by a female as well as a neuter pronoun in (4c) and (4d), with a slight preference for the neuter pronoun in (4c). This is in line with the observations reported above, since the immediate antecedent *das Mädchen* (the girl) c-commands the pronoun (in (4c)) and/or is close to it in terms of linear distance (in both (4c) and (4d)). What is unexpected both with respect to these observations and with respect to formal analyses of FID and VS/PP is that the female pronoun is strongly preferred in (4a) and (4b), with the neuter pronoun sounding extremely awkward in (4a) and awkward in (4b): First, in terms of linear distance, there is no relevant contrast between (4a) and (4b), on the one hand, and (4d), on the other. Second, the double context analyses of FID (Schlenker 2004, Sharvit 2008, Eckardt 2014) assume the pronouns referring to the protagonist whose thoughts or utterances are rendered to be interpreted with respect to the narrator's rather than the protagonist's context and the mixed quotation account (Maier 2015, 2017) assumes them to be unquoted. Third, neither the modified double context analysis (Stokke 2013, Abrusán 2021) or the modified mixed quotation account of PP (Stokke 2021) nor the operator approach to VS (Hinterwimmer 2017) predict any special behavior of pronouns referring to the protagonist whose doxastic state is reported in VS/PP: On the first two approaches they are predicted to be interpreted with respect to the narrator's context or be unquoted, just like in FID, while on the latter they are also predicted to be interpreted with respect to the narrator's context, since no partial context shift or quotation is involved.

**Experiment** In order to test whether the contrasts in (4a-d) are reliable and generalize to other nouns, we conducted a forced choice study with items in four conditions (distributed across four lists and interspersed with fillers of comparable length and complexity) similar to (4a-d). Half of the items contained nouns denoting (sets of) humans such as *Genie* (genius) or *Star* (star), where there was a (potential) mismatch between morphosyntactic and semantic gender, and half contained nouns denoting (sets of) animals such as *Giraffe* (giraffe) or *Ferkel* (piglet) where there likewise was such a (potential) mismatch. Crucially, in the items with the animals the latter were introduced (via proper names; just as in (4a-d)) as anthropomorphized protagonists capable of having self-reflexively conscious thoughts. Participants had to choose between pronouns matching the semantic gender of the protagonist and pronouns matching the morphosyntactic gender of the DP functioning as the immediate antecedent. Results (shown below) revealed that while the participants had a rather strong preference for semantically matching pronouns across all four conditions, the preference was even stronger in the case of FID and VS/PP than in the other two conditions. The effect was significant for FID, but not for VS/PP. Finally, the contrast between the conditions with FID and the other conditions was stronger in the items with the animals than in the items with the human protagonist.



**Analysis** Following Elbourne (2008), we assume that pronouns are covert definite descriptions introducing two covert variables: a relation variable  $R$  and a variable  $i$  ranging over individuals. Co-referential interpretations of pronouns can now come about in either of two ways: The first option (*identity*) is to resolve the relation  $R$  variable to the identity relation and the individual variable  $i$  to some contextually salient individual. The pronoun then denotes the unique individual that is identical to that individual (in the contextually provided situation). The second option (*assignment*) is to resolve  $i$  to the occurrence of an NP in the immediately preceding context and  $R$  to the interpretation function (just as in Elbourne's 2008 analysis of donkey pronouns). The pronoun then denotes the unique individual that has the property denoted by that NP in the respective situation. Crucially, if *identity* is chosen, the morphosyntactic gender of the pronoun is not determined by the morphosyntactic features of its immediate antecedent. Rather, it is chosen on the basis of the speaker's conception of the individual that is assigned to the individual variable  $i$ . Consequently, the gender of the pronoun has to match the semantic gender of the individual variable's value. If *assignment* is chosen, the morphosyntactic gender of the NP the occurrence of which is chosen as the value of the individual variable is copied to the pronoun. This is due to the locality requirement seen in (1a-d): The NP occurrence is in a local configuration with the pronoun's determiner head, therefore their phi-features have to agree, just as the phi-features of the determiner and the noun in (1a-d).

Now, in the short narrative segments in (4a-d), both options are in principle available. If *identity* is chosen,  $i$  is resolved to the individual that is introduced by the proper name, Maria, and  $R$  is resolved to the identity relation. Consequently, the pronoun denotes the unique individual that is identical to Maria (in the contextually provided situation) and its morphosyntactic gender is determined on the basis of speaker's conception of Maria as a female individual. If *assignment*

is chosen, the occurrence of the NP *elegant gekleidete Mädchen* is chosen as the value of *i*, and its morphosyntactic gender features are copied to the determiner head, due to locality, resulting in the pronoun being spelled out as *es*. The *R* variable is resolved to the interpretation function, returning the property of being an elegantly dressed girl when it is applied to the NP occurrence. Consequently, the pronoun denotes the unique individual with that property in the contextually provided situation. Crucially, if the proposition denoted by the clause containing the pronoun is the content of a thought or utterance of the pronoun's referent or describes a perception of that referent in a way that is compatible with their doxastic state at the perception time, as in (4a) and (4b), empathy with the respective individual is triggered. Consequently, the first option, which tracks that individual's semantic gender, which is presumably a crucial part of their self-concept, is strongly preferred. In neutral narration (as in (4d)), in contrast, empathy is not necessarily triggered and accordingly the second option may be chosen as well. Finally, in indirect discourse (as in (4c)), the embedded sentence denotes content of a thought of Maria and therefore triggers empathy, which would lead us to expect that the semantically matching pronoun is as strongly preferred as in (4a) and (4b), contrary to fact. We assume that this is due to the fact that the definite DP c-commands the pronoun, which leads to assignment being more easily available than in the other two conditions.

## References

- Abrusán, Marta (2021). The spectrum of perspective shift: Free indirect discourse vs. protagonist projection. *Linguistics & Philosophy* 44, 839–873.
- Eckardt, Regine.(2014). *The Semantics of free indirect discourse: How texts allow to mindread and eavesdrop*. Leiden: Brill.
- Elbourne, Paul (2008). Demonstratives as individual concepts. *Linguistics & Philosophy* 31, 409–466.
- Hinterwimmer, Stefan (2017). Two kinds of perspective taking in narrative texts. *Proceedings of Semantics and Linguistic Theory* 27, 282–301.
- Hübner, Julia (2021). In: Anja Binanzer, Jana Gamper & Verena Wecker (eds.): *Prototypen, Schemata, Konstruktionen. Untersuchungen zur deutschen Morphologie und Syntax*. Berlin: de Gruyter, 31-52.
- Köpcke, Klaus-Michael & David A. Zubin (2009): Genus. In Elke Hentschel & Petra M. Vogel (eds.), *Deutsche Morphologie*, 132-154. Berlin: De Gruyter.
- Maier, Emar (2015). Quotation and Unquotation in Free Indirect Discourse. *Mind & Language* 30, 345-373.
- Panther, Klaus-Uwe (2009): Grammatische versus konzeptuelle Kongruenz. Oder: Wann siegt das natürliche Geschlecht? In Rita Brdar-Szabó, Elisabeth Knipf-Komlósi & Attila Péteri (eds.), *An der Grenze zwischen Grammatik und Pragmatik*, 67-86. Frankfurt am Main: Peter Lang.
- Schlenker, Philippe (2004): Context of Thought and Context of Utterance. A Note on Free Indirect Discourse and the Historical Present. *Mind & Language* 19: 279-304.
- Sharvit, Y. (2008): The Puzzle of Free Indirect Discourse. *Linguistics & Philosophy* 31: 353-395.
- Stokke, Andreas (2013). Protagonist projection. *Mind & Language* 28(2), 20-232.
- Stokke, Andreas (2021). Protagonist projection, character focus and mixed quotation. In Emar Maier & Andreas Stokke (eds.), *The Language of fiction*. Oxford: Oxford Univ Press, 379-404.
- Thurmair, Maria (2006): *Das Model und ihr Prinz. Kongruenz und Texteinbettung bei Genus-Sexus-Divergenz*. Deutsche Sprache 34, 191-220.