

**Separating thematic role effects from structural prominence effects:  
a comparison of Turkish and German pronouns**

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We investigate pronoun resolution in Turkish (pro-drop) and German (non pro-drop). Thematic roles were manipulated by using different *transfer of possession* (ToP) verbs (1).

- (1) a. **Get-type** (Recipient–Agent): Peter got a book from Mary.  
b. **Give-type** (Agent–Recipient): Mary gave Peter a book.

Prior research has shown that the position of expressions within the referential hierarchy (see (2); e.g., Ariel, 1990; Gundel et al., 1993) correlates with discourse properties of its antecedent: the more reduced the form (left) the more prominent its antecedent.

- (2) **Referential hierarchy** (short): null pronoun > pronoun > demonstrative > full NP

We investigated Turkish null pronouns and overt p(ersonal)-pronouns and German p(ersonal)-pronouns and d(emonstratives)-pronouns. Turkish null pronouns and German p-pronouns are at the top of the referential hierarchy in their respective language and refer back to prominent referents (e.g., Turan, 1996; Bosch et al., 2003). Turkish p-pronouns and German d-pronouns come next on the referential hierarchy in each language and are used for less prominent referents (e.g., Enç, 1986; Bosch et al., 2003). This suggests the following correspondences: (i) Turkish null pronouns ~ German p-pronouns; (ii) Turkish p-pronouns ~ German d-pronouns.

The first major aim of our experiments was to test whether these correspondences indeed hold. Our second main aim was to test whether the interpretation of the different pronouns is affected by thematic and structural factors in similar ways, suggesting a single notion of prominence.

Table 1: Materials and method

<b>German Experiment</b>	<b>Turkish Experiment</b>
<i>Context</i>	<i>Context</i>
<b>Give-type (Agent–Recipient):</b> Jonathan hat Henri ein Halstuch gegeben. <i>Jonathan gave Henri a scarf.</i>	<b>Give-type (Agent–Recipient):</b> Koray Canberk’e bir atkı verdi. <i>Koray gave Canberk a scarf.</i>
<b>Get-type (Recipient–Agent):</b> Maja hat von Luisa ein Ei bekommen. <i>Maja got an egg from Luisa.</i>	<b>Get-type (Recipient–Agent):</b> Ayşe Melike’den iki yumurta aldı. <i>Ayşe got two eggs from Melike.</i>
<i>Prompt:</i>	<i>Prompt:</i>
<b>No-pronoun:</b> _____	<b>No-pronoun:</b> _____
<b>p-pronoun:</b> Er/Sie _____	<b>p-pronoun:</b> O _____
<b>d-pronoun:</b> Der/Die _____	<b>null pronoun:</b> [ÖZNE YOK] _____
	(explicit prompt participants were familiarized with)
<hr/> <b>Method</b>	<hr/> <b>Method</b>
<ul style="list-style-type: none"> <li>• 39 native speakers of German</li> <li>• 30 sentences</li> <li>• Written sentence/text continuation</li> </ul>	<ul style="list-style-type: none"> <li>• 30 native speakers of Turkish</li> <li>• 30 sentences</li> <li>• Written sentence/text continuation</li> </ul>

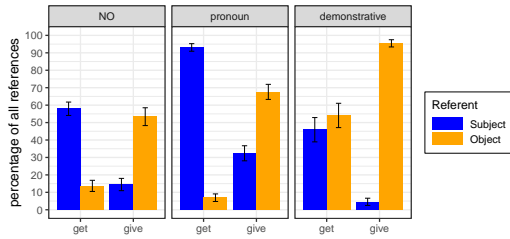


Figure 1: References for the three prompts in German.<sup>1</sup>

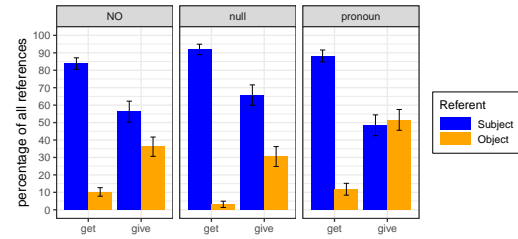


Figure 2: References for the three prompts in Turkish.<sup>1</sup>

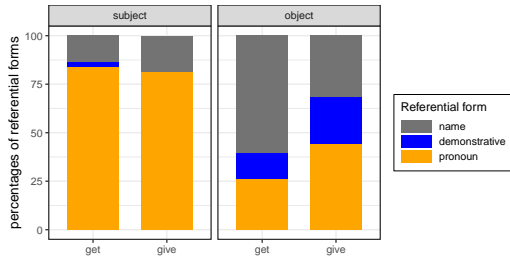


Figure 3: Referential forms in German.

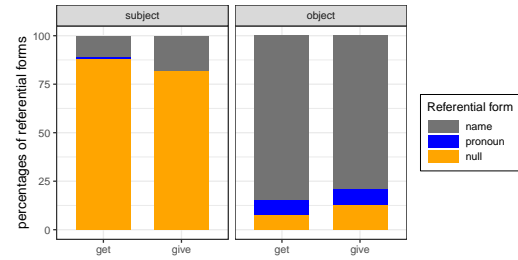


Figure 4: Referential forms in Turkish.

We investigated reference selection as well as reference form selection using three different continuation prompts in German and Turkish, manipulating verb type (see Table 1 for a summary of the experimental method). Experiments were presented on Ibex Farm.

For reference selection (Fig. 1 and 2),<sup>1</sup> both languages showed an effect of thematic roles with a bias for recipients over agents, as visible by more references to the subject for *get*-type than for *give*-type verbs with all three prompts. This runs counter to a prominence-based influence of thematic roles because agents are more prominent than recipients (see Patterson & Schumacher, 2021), but is in line with event-based thematic influences (e.g., Stevenson et al., 1994). We will corroborate this finding with an analysis of the produced coherence relations. With regard to structural factors, Turkish null and p-pronouns and German p-pronouns show a strong subject bias modulated by verb bias whereas German demonstratives show a strong object bias, also modulated by verb bias.

As for reference form selection (Figures 3 and 4), references to the subject showed the same pattern for Turkish null pronouns and German p-pronouns. For reference to objects, in contrast, we found a strong name preference in Turkish and a more distributed pattern in German.

In sum, Turkish null and German p-pronouns are in correspondence both for interpretive preference and choice of referential form. Turkish p- and German d-pronouns converge for choice of referential form – when they are used at all, they are used for referring back to the object – but diverge for interpretive preferences – Turkish p-pronouns prefer subject antecedents whereas German d-pronouns prefer object antecedents. We will compare our findings with results for psych verbs in German (Bader et al., to appear) and Turkish (Konuk & von Heusinger, 2021). We will argue for a separation of thematic role effects from structure-based prominence effects along the lines of Stevenson et al. (1994).

<sup>1</sup>Note that percentages do not sum to a 100% in the no-pronoun prompt condition (German and Turkish) and in the null-pronoun condition (Turkish), mainly because of references to the inanimate theme object.

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