The German definite article and the 'sameness' of indices
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Intro The German definite article may contract with a preposition. The contracted form is called 'weak' (1a); the non-contracted form is called 'strong' (b) (Schwarz 2009). I provide an account of the contrast in (1) that crucially extends to an unexplained puzzle posed by the modifier 'same.'

(1) a. Hans ging **zum** Haus
         Hans went to+the house

         'Hans went to the house.'

    b. Hans ging **zu dem** Haus
         Hans went to the house

         'Hans went to the house.'

Schwarz (2009) argues that the strong form (1b) is used when the referent of a noun phrase is *anaphoric* (2); the weak form occurs elsewhere. As Schwarz notes, however, there is a counterexample to this distribution that remains unaccounted for: when the modifier 'same' is present in anaphoric contexts, the weak form surfaces (3). I build on Schwarz' central claim – that the anaphoric strong form includes structure hosting a bindable index (cf. Elbourne 2005) – but offer an analysis of the strong/weak distinction that immediately captures the contraction puzzle in (3).

(2) Es hängt an einem Haus. #**Am/an dem**   Haus findet ihr eine Jahreszahl...
     It hangs on a   house. On   the/on+the house find you a   date.

     'It's hanging on a house. On the house you'll find a date...'

(3) Es hängt an einem Haus. **Am/#an dem** selben Haus findet ihr eine Jahreszahl...
     It hangs on a   house. On+the/on the same house find you a   date.

     'It's hanging on a house. On the same house you'll find a date...'

Proposal The locus of the index in the strong form is a property-denoting head that I call *idx*, which intervenes between D and N (and is not a specifier of D, as in Schwarz 2009; see (4)). Following Schwarz I assume that the weak form lacks this extra structure. (P)reposition-(D)eterminer contraction is blocked in the strong form when D lowers to *idx*; if D does not lower, *idx* is spelled out as the modifier 'same' and P and D must contract. This proposal has three advantages over previous accounts: **(i)** it immediately extends to the contraction puzzle in (3); **(ii)** it affords a uniform Strawsonian denotation for both article forms (cf. Schwarz 2009), and **(iii)** it captures the index-like behavior of 'same' cross-linguistically, citing evidence from the Hebrew pronoun *oto*.

Structure A phrase *idx*P, intervenes between D and N (cf. Wiltschko to appear; Simonenko 2014). Its head *idx* denotes the property of *being anaphoric* and houses a restricted variable for binding:

(4) a. *Strong Form Structure:*

    b. $[[idx]]^g$: $\lambda x[x = g(i)]$

    c. $[[D]]$: $\lambda P.\iota x[P(x)]$

idx undergoes Predicate Modification with NP; the DP then denotes the unique individual with both the property denoted by NP and which is equal to $g(i)$. The anaphoric meaning in (5) is thus introduced by the unbound variable in the denotation of *idx*, explaining the difference between the

article forms: the weak form lacks *idx*P. In non-anaphoric uses, D with the same Strawsonian denotation can combine directly with NP, unifying D for both forms. Further, while Schwarz (2009) suggests that the external use of 'same' might independently have the denotation in (4a), it is not related to the semantics of the index under his account; I argue instead that *idx* always denotes a property – compatible with its syntax

(5)

$$\text{DP}\quad \iota x[\text{house}(x) \land x=g(i)]$$

D : $\lambda P.\iota x[P(x)]$

*idx*P : $\lambda x[\text{house}(x) \land x=g(i)]$

idx : $\lambda x[x=g(i)]$　　NP : $\lambda x[\text{house}(x)]$

as a modifier of N – and may be spelled out by the modifier 'same' to express the same meaning.

Contraction The morphosyntactic explanation for P-D contraction comes from the post-syntactic movement operation *Lowering* (Embick and Noyer 2001). P-to-D lowering is obligatory, explaining the contraction of the weak form; after P lowers, P and D undergo *Fusion* (Halle and Marantz 1993) and spell out as one morphological word. When *idx*P *is* present, however, D lowers (6a) and undergoes fusion with *idx*, rendering P-to-D lowering vacuous and blocking contraction (b):

(6)　a. *D-to-idx Lowering*

PP
 P　　DP
　　D　　*idx*P
　　　idx　　NP

b. *P-to-D Lowering*

PP
 P　　DP
　　　　　*idx*P
　　　D+*idx*　　NP
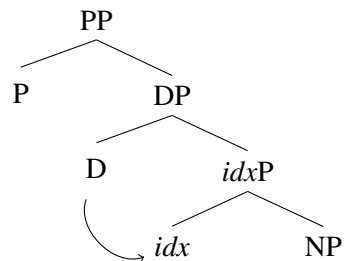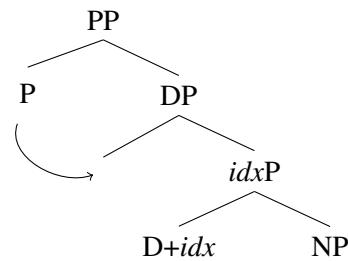
Given examples like (3), however, we see that the modifier 'same' surprisingly co-occurs with the weak form in anaphora. I propose that, if D does not lower to *idx*, *idx* must spell out as 'same', i.e., 'same' is an allomorph of *idx* that surfaces when *idx* and D do not form a complex head. The contraction puzzle in (3) is immediately explained: if D does not lower to *idx*, *idx* is realized as 'same' and P-to-D lowering is no longer vacuous, explaining contraction in certain cases of anaphora.

Hebrew There is independent evidence (outside Germanic) that an index can spell out as 'same.' E.g., while Hebrew *oto* is a third person pronoun, it can also act as 'same'. Further, *oto* renders the otherwise obligatory definite prefix *ha-* optional, mirroring the sensitivity of D to *idx*'s presence:

(7)　Karati sefer. Itamar kara et **oto** (ha)-sefer.
　　I.read book. Itamar read *acc.marker* same (the)-book.

　　'*I read a book. Itamar read the same book.*'

Conclusion I provide an account of the strong/weak distinction in the German definite article that explains the puzzling use of the weak form in anaphora involving 'same.' In the strong form alone, D selects for the index-hosting head *idx*, which either spells out with a lowered D, blocking contraction, or spells out as external 'same' when D has not lowered, forcing contraction. This account draws support from cross-linguistic evidence that 'same' acts as an allomorph of an index in Hebrew.

***Selected References: Elbourne, Paul**. "Situations and individuals." (2005). **Embick, David and Rolf Noyer**. "Movement operations after syntax." (2001). **Halle, Morris and Alec Marantz**. "Distributed Morphology and the pieces of inflection." (1993). **Schwarz, Florian**. "Two types of definites in natural language." (2009). **Simonenko, Alexandra.** "A structural account of the loss of scopelessness." (2014). **Wiltschko, Martina**. "Descriptive relative clauses in Austro-Bavarian German." (to appear).*