

The argument structure of reflexively marked anticausatives and middles: evidence from datives

A. Many Indo-European languages have argument alternations where a transitive verb alternates with a reflexively marked version that lacks the original external argument. The most prevalent alternations of this type are *reflexively marked anticausatives*, and *reflexively marked middles*, illustrated for German in (1b) and (2b). German has a second type of middle derived from the causative/permissive verb 'lassen' (let) which follows the same pattern (3b) (cf. French *se-faire* constructions).

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| (1) a. | <i>Hans öffnet die Tür.</i>
John opened the door | b. | <i>Die Tür öffnet sich.</i>
the door opens REFL |
| (2) a. | <i>Hans liest das Buch.</i>
John reads the book | b. | <i>Das Buch liest sich gut.</i>
the book reads REFL well |
| (3) a. | <i>Hans lässt das Buch lesen.</i>
John makes/lets the book read | b. | <i>Das Buch lässt sich gut lesen.</i>
the book makes/lets REFL well read |

These b-constructions have found three different analyses either as (i) unaccusative, (ii) unergative, or (iii) reflexivized causative structures (see **B**). We provide configurational arguments from German for the unaccusative analysis (see **C**). These arguments built on two properties of German: nominative DPs (DP_{NOM}) in passive or unaccusative structures can stay in vP-internal object position (Wurmbrand 2006), and all three constructions allow subcategorized or free datives.

B. In **unaccusative analyses**, (1b-3b) lack an external argument (though middles have it on an interpretative level) and DP_{NOM} is merged as the internal argument of the verb just as in the transitive counterpart. The reflexive pronoun is non-thematic and its presence is associated with the absence of an external argument (though theories differ in details; e.g. Reinhart 2002, Schäfer 2008, Labelle & Doron 2010). In **unergative analyses** of reflexive anticausatives and middles, DP_{NOM} in (1b-3b) is merged as an external argument which, nevertheless, gets assigned the theme role. The reflexive pronoun is analyzed as a marker of reduction (Lekakou 2008) or as a specific Voice-head passing the verb's internal θ -role up to its specifier (Labelle 2008). Under a **causative analysis of anticausatives** (Chierchia 2004, Koontz-Garboden 2009), the predicate assigns both an internal (theme) and an external (causer/effector) θ -role to DP_{NOM} . Technically, the reflexive pronoun is analyzed as a reflexivization operator which takes a relation as its argument and identifies both arguments of the relation. Though these authors do not discuss mapping to syntax, under any linking theory we are aware of, DP_{NOM} should be merged as an external argument. This is even more so if we acknowledge the arguments in Doron & Rappaport Hovav (2009) which strongly suggest that e.g. German or Romance reflexives (i.e. SE-reflexives) behave as anaphoric pronouns subject to principle A in cases of undisputed reflexive binding (*John denounced himself*). For a causative analysis of anticausatives this would mean that DP_{NOM} is the causer/effector subject and the reflexive is the anaphorically bound theme object. Such a structure carries over to **causative analyses of middles**. Zwart (1998) proposes that middles involve a little v head expressing causation/permission. German 'lassen' in (3) (and French 'faire') could be seen as overt instantiations of such a head. This head assigns a 'responsibility-role' to DP_{NOM} and the reflexive can be understood as taking up the theme role so that (2b/3b) roughly mean 'the book_i is responsible that one reads it_i easily'.

C. First, reflexive middles (4b) and 'lassen'-middles (4c) can be formed with verbs assigning **lexical object case** (4a). Since German lacks quirky subjects, the fact that lexical case survives middle formation is incompatible with the idea that the referential DP is merged externally.

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| (4) a. | <i>Er hilft einem Obdachlosen.</i>
he.Nom helps a.Dat homeless-person | b. | <i>Einem Obdachlosen hilft sich leicht.</i>
a.Dat homeless-person helps REFL easily |
| | c. | <i>Einem Obdachlosen lässt sich leicht helfen.</i>
A.Dat homeless person lets REFL easily help | |

Second, across languages free **affectedness datives** are licensed only in structures involving an internal argument. In a syntactic theory of datives, these are projected in SpecAppP which is below VoiceP (if present) but above the internal argument (Pylkkänen 2002, Cuervo 2003, Schäfer 2008). All constructions in (1b-3b) allow such datives (e.g. 5a,b), which suggests that their DP_{NOM} is an internal argument. These datives are then problematic for unergative analyses and causative analyses involving a reflexivization operator (but not for ones involving an anaphor in object position).

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| (5) a. | <i>Dem Mann öffnete sich die Tür.</i>
the.Dat man opened REFL the.Nom door | (reflexive anticausative) |
| | 'The door opened and the man was (positively/negatively) affected by it.' | |

- b. *Einem Blinden räumt sich leicht die Wohnung auf.* (reflexive middle)
 a. Dat blind person cleans REFL easily the apartment up
 'The apartment of a blind person cleans up easily.'

One could try to analyze affectedness datives in purely thematic terms so that the presence of a theme argument would be sufficient, irrespectively of its merge position. **Word order** facts speak against this. Lenerz (1977) established that the unmarked word order of a DP_{NOM} and a DP_{DAT} differs in active and in passive/unaccusative structures in German. While in active clauses a rhematic DP_{DAT} must follow a DP_{NOM} (cf. 6), in passives and unaccusatives both orders are possible (the order DAT<NOM is possible because a DP_{NOM} does not have to move to SpecTP). Crucially, reflexive anticausatives and both types of reflexive middles allow the order DAT<NOM. This is illustrated in (7) for middles (cf. Schachtl 1991). These facts can only be captured by the unaccusative analysis.

- (6) Q.: *Wem hilft heutzutage noch der Politiker?*
 whom.Dat helps nowadays yet the.Nom politician
 A: *Heutzutage hilft (der Politiker) nur noch dem Reichen (*der Politiker).*
 nowadays helps the.Nom politician only yet the.Dat rich the.Nom politician
 'Nowadays, politicians only help rich people.'
- (7) Q: *Wem räumt sich heutzutage noch die Wohnung leicht auf?*
 whom.Dat cleans REFL nowadays still the.Nom apartment easily up?
 A. *Heutzutage räumt sich (die Wohnung) nur noch dem Blinden (die Wohnung) leicht auf.*
 nowadays cleans REFL the apartment only still the.Dat blind the apartment easily up
 'Nowadays, only the apartment of a blind person can be cleaned up easily.'

Third, German **wh-indefinites** cannot undergo scrambling but must stay in their base position (Haider 1993, Heck & Müller 2000). If DP_{NOM} were an external argument, we would predict it to necessarily precede a dative *wh*-indefinite. Under an unaccusative analysis, on the other hand, DP_{NOM} is generated below the dative, optionally scrambling over it. This is exactly what we find (cf. 8a, b).

- (8) a. *weil sich (der Gewinn) wem (der Gewinn) verdoppelt hat.*
 as REFL the.Nom profit someone.Dat the.Nom profit doubled has
 'because the profit of someone doubled.' (reflexive anticausative)
- b. *weil sich hoffentlich (das Buch) wem (das Buch) leicht verkaufen lässt.*
 as REFL hopefully the.Nom book someone.Dat the.Nom book easily sell let
 'because someone can hopefully be sold the book.' ('lassen'-middle)

Finally, all constructions in (1b-3b) behave like unaccusatives and unlike transitives in the way DP_{NOM} interacts with DP_{DAT} in terms of **binding**. In a situation where a nominative quantifier is coindexed with the possessor of the dative, word order is free with transitive clauses (9a). With unaccusatives, the quantified nominative has to precede the dative (9b). All three constructions in (1b-3b) pattern with unaccusatives as exemplified with reflexive middles in (9c).

- (9) a. *weil (seinem_i Schüler) jeder Lehrer_i (seinem_i Schüler) hilft.* (transitive)
 as his.Dat student every.Nom teacher his.Dat student helps
- b. *weil (*seinem_i Besitzer) jedes Glas_i (seinem_i Besitzer) zerbricht.* (unaccusative)
 as his.Dat owner every.Nom glas his.Dat owner breaks
- c. *weil sich (*seinem_i Besitzer) jedes Auto_i (seinem_i Besitzer) leicht stiehlt.* (reflexive middle)
 as REFL his.Dat owner every.Nom car his.Dat owner easily steals

D. The behavior of free and lexical datives in the reflexive constructions in (1b-3b) strongly suggests that their DP_{NOM} is an internal argument, and that these constructions are unaccusative. Even though our arguments depend on certain properties of German (see A above), the null-hypothesis certainly is that if the constructions in (1b-3b) can be found in other languages where they show exactly the same morphology and semantics, they should be based on the same configuration.

Selected references: Cuervo 2003. *Datives at Large*. PhD thesis • Doron & Rappaport Hovav 2009 A Unified Approach to Reflexivization in Semitic and Romance. *Brill's Annual of Afroasiatic Languages and Linguistics* 1 • Haider 1993. *Deutsche Syntax Generativ*. Narr • Koontz-Garboden 2009. Anticausativization. *NLLT* 27 • Labelle 2008. The French Reflexive and Reciprocal se. *NLLT* 26 • Labelle & Doron 2010. Anticausative derivations (and other valency alternations) in French. *Probus* • Lekakou 2005. *In the Middle, Somewhat Elevated*. PhD thesis • Lenerz 1977. *Zur Abfolge nominaler Satzglieder im Deutschen*. Niemeyer • Pylkkänen 2002. *Introducing Arguments*. PhD thesis • Reinhart 2002. The Theta System – An Overview. *TL* 28 • Schäfer 2008. *The Syntax of (anti-)causatives*. Benjamins • Wurmbrand 2006. Licensing Case. *JoGL* 18.