

Reflexive Pronouns in Middles and Related Construction

Middle constructions (MCs) in German are common transitive sentences in syntax with a reflexive pronoun in the position of the accusative (or direct) object. In this respect they resemble MCs in many Indo-European languages but differ from Dutch and English MCs, which are syntactically intransitive. German has personal (cf. (1.a)) and impersonal (cf. (1.b)) MCs. The latter are derived from one-place predicates and obligatorily require the impersonal subject *es* (it).

- (1) a. Dein Buch liest sich gut (personal MC)
 Your book-NOM reads REFL.PRONOUN-ACC well
- b. In diesem Bett schläft es sich bequem (impersonal MC)
 In this bed sleeps IT-NOM REFL.PRONOUN-ACC comfortably

Although MCs are syntactically transitive reflexive sentences (TRSs) with the verb in the active, their thematic interpretation is identical to that of passives. The reflexive pronoun in the position of the accusative object is not interpreted as an argument of the verb in (1a. and b). The same holds for reflexive anticausatives in German (cf. (2.a)). In MCs and reflexive anticausatives, the reflexive pronoun indicates valency reduction. However, a reflexive pronoun in the position of the accusative object does not always indicate valency reduction. It can also be interpreted as an argument of the verb as can be seen in (2.b), which yields a reflexive interpretation.

- (2) a. Die Tür öffnet sich (i.e. The door opens)
 The door-NOM opens REFL.PRONOUN-ACC
- b. Peter wäscht sich (i.e. Peter washes himself)
 Peter-NOM washes REFL.PRONOUN-ACC

This ambiguity does not hold for dative reflexive pronouns. They are always interpreted as semantic arguments of the verb. Therefore, dative objects cannot undergo ‘middle formation’. Only impersonal MCs like (3.b) are grammatical with dative objects. In impersonal MCs, the dative object can preserve its case and the accusative reflexive pronoun again indicates valency reduction.

- (3) a. Alte Männer helfen sich leicht (*middle interpretation)
 Old men-NOM helps REFL.PRONOUN-ACC/DAT easily
- b. Alten Männern hilft es sich leicht (impersonal MC)
 Old men-DAT helps IT-NOM REFL.PRONOUN-ACC easily

Hence, we can state the following empirical generalization for German: *Only the reflexive pronoun in the position of the accusative (or direct) object can indicate valency reduction in German. It can (cf. 2.b) but need not (cf. 1 and 2.a) be interpreted as an argument of the verb.*

Syntactic as well as lexical analyses of MCs are motivated by the assumption that the s-selectional properties of lexical items directly organize the syntactic representation. Therefore, they must manipulate the argument structure of a verb at some level of representation. In nearly all analyses, MCs are derived either in the syntax or in the lexicon. Syntactic analyses of MCs equal syntactic analyses of passives. MCs are derived by A-movement from an underlying deep structure representation with ‘normal’ argument realization. Lexical analyses usually assume (i) suppression of the first argument (ii) promotion of the second argument and (iii) addition of the reflexive pronoun. Apart from displaying various technical shortcomings, both the syntactic and the lexical approaches fail to offer an explanation for the generalization made above. They cannot derive all kinds of TRSs in an uniform way. Besides, we do not find any empirical motivation for a syntactic or lexical derivation of MCs.

Therefore, we want to argue for a postsyntactic analysis of MCs, which has been neglected so far. Our analysis is based on the following three assumptions: (i) the ϕ -features of (weak) reflexive pronouns are maximally underspecified. Therefore, (weak) reflexive pronouns are referentially defective and hence not specified for the feature [R] (they can be either [+R] or [-R]). (ii) German distinguishes between structural (nominative and accusative) and oblique (dative) case. Only NPs that are assigned structural case are syntactic arguments. Both assumptions are independently motivated. The first one seems to be valid crosslinguistically whereas the second one is language-specific. (iii) An (extended) A-chain (i.e. a chain that consists of syntactic arguments) must be headed by a [+R] expression. It follows from these assumptions that a reflexive pronoun that is specified as [-R] and assigned structural case must be bound in syntax by another syntactic argument that is specified

as [+R]. This is illustrated in example (4) for the MC in (1) - we omit CP and verb movement; *L* stands for *lesen*, *S* stands for *schnell*, and *b* stands for *Buch*; *s* is a variable for situations and **GEN** stands for the generic operator.

- (4) a. [_{AgrSP} Das Buch-[+R]₁-NOM [_{AgrOP} sich-[-R]₁-ACC [_{VP} leicht [_{VP} t₁' t₁ liest]]]
 b. **GEN**[_{s,x}] (L ⟨ x, b ⟩); S(s)

This binding configuration leads to the extended A-chain (*das Buch₁ - sich₁ - t₁' - t₁*), which is linked to the second argument position of the verb via its VP-internal base position t₁ (the complement of the verb). Hence, the whole chain introduces only one argument variable into the semantic representation. The first semantic argument of the verb is not linked to syntax. This free argument variable must be bound by a generic operator in MCs (argument saturation). The semantic representation for (4.a) is given in (4.b). In anticausatives, the first argument of the verb is not bound by the generic operator but completely removed from the semantic representation (argument reduction - an operation, which is lexically restricted). As opposed to this, the reflexive pronoun in the position of the accusative object introduces an argument variable of its own if it is specified as [+R]. In this case, the reflexive pronoun must head its own chain and a sentence like (2.b) contains two A-chains, which are linked to the first and second argument position of the verb respectively. This account offers a uniform analysis of all three interpretations of TRS. The thematic ambiguity of the reflexive pronoun is derived at the interface between syntax and semantics. As opposed to accusative case, dative case is oblique in German. Hence, dative objects are not syntactic arguments and a dative reflexive pronoun cannot be part of an extended A-chain.