Delimiting Voice in Germanic: on object drop and naturally reflexive verbs
Artemis Alexiadou, Florian Schäfer and Giorgos Spathas

In this paper we offer a uniform analysis of intransitive Naturally Reflexive Verbs (iNRVs)(1) and intransitive Non-Core Transitive Verbs (iNCTs)(2), which captures the fact that (i) object drop is generally unmarked in Germanic and (ii) English iNRVs are unmarked. We argue that both involve Active Voice, an unergative syntax, and an existentially bound implicit theme argument.

1. Object-drop. (2) has been proposed to be the result of a lexical detransitivization rule, as in (3). Similar rules have been deployed in analyses of Anti-passive morphemes in ergative languages (e.g. Wharram 2003 for Inuktitut). There are no Germanic languages, however, that employ special morphology in object-drop, which we take as an indication that no designated Antipassive rule exists in these languages. We propose a syntactic re-interpretation of Bresnan’s analysis within the framework of Distributed Morphology where external arguments are introduced by Voice heads and roots can introduce internal arguments. In the case of iNCTs, the relevant Voice head is Active (4). Since the internal argument slot has not been saturated, the vP in (5) cannot combine with Voice\textsubscript{ACT}. The type-mismatch is resolved by applying Existential Closure (EC). (2), then, has the meaning in (7).

(3) Bresnan(1978)’s Detransitivization Rule (simplified): \[ \text{[DETTRANS]} = \lambda P_{\omega} \lambda x \text{P}(x)(y) \]

(4) \[ \text{[Voice\textsubscript{ACT}]} = \lambda P_{\omega} \lambda x \lambda e. \text{P}(e) & \text{agent}(x)(e) \]

(5) \[ \text{[[x \text{v} [\text{vEAT}]]]} = \lambda \lambda e. \text{eat}(e) & \text{theme}(x)(e) \]

(6) \[ \text{[EC]} = \lambda P_{\omega} \lambda x \exists x. \text{P}(x)(e) \]

(7) Rappaport Hovav & Levin (1998) show that verbs, which allow object drop (NCTs; 2) and those that disallow object drop (core transitive verbs (CTVs; 8) differ in event complexity (9 vs. 10): NCTs are mono-eventive while CTVs are bi-eventive. They derive the (im)-possibility of object drop from (11): while the object is an argument of the root in (9), it is an argument of a sub-event in (10). Arguments of roots, while semantically present, do not have to be projected to the syntax. EC, then, which allows saturation in the absence of a syntactically projected argument, will only be possible for NCTs.

2. Unergative syntax. If no internal argument is projected in (2) we expect iNCTs to behave like unergatives. Indeed, iNCTs pass all the tests for unergativity (e.g. Levin 1999). Among others: Unlike CTV\textsubscript{1}(12a, 13a, 14a) and unaccusatives (12b; 13b, 14b) but like unergatives (12c, 13c, 14c) iNCTs (i) enter the X-way-construction (12d), (ii) license out-prefixation (13d), and (iii) license secondary resultative predicates only in the presence of a fake reflexive (14d).

(12) a. *Nero destroyed his way into history. b. *The butter melted its way off the turkey.
   c. John danced his way into Mary’ heart. d. John ate/scrubbed his way into history.


(14) a. John broke *(the table) to pieces. b. The ice froze *(itself) solid.

3. Existential binding. In our analysis the implicit theme of iNCTs is existentially bound, as is the implicit agent of passives (Bach 1980, Dowty 1982, a.o.). By introducing EC within the vP domain, the analysis directly explains the well-known fact that implicit arguments take narrowest scope wrt other quantifiers (Fodor & Fodor 1980, Dowty 1982, a.o.). It also predicts that implicit themes cannot be bound, as shown in (15) (even when considered in a fairy-tale scenario in which apples can talk).

Mittwoch (1982) claims that an existential analysis of implicit themes is unsustainable because iNCTs are atelic, whereas transitives NCTs are telic (16a, b). As Mittwoch notes herself, however, for-advverbials are licensed in a context as in (17). We propose that telicity is determined by the properties of the elements the existential quantifies over; if it they have the property [+delimited quantity] the predicate is telic, if it is assumed to have the property [-delimited quantity] the predicate is atelic. We show that this holds for both iNCTs and tNCTs (16b/17).

(15)Every apple told Alice that she should eat = ‘Every apple told Alice that she should eat something’
   ‘*Every apple told Alice that she should eat it.’
contexts (2005) derive the Germanic and (ii) that English i

we offered a uniform analysis of the two operations to arrive at a specific interpretation over non-iNRVs. We expect iNCTs not to show DRE. This, we claim, is exactly the case with iNRVs.

(18) John was praised.  (19) [PastVoiceJohn1 [PassVoice*PassVoice [vP \PRAISE t1] ]]

(20) \[([19])= \exists e\exists x. praise(e) & theme(j)(e) & agent(x)(e) \]


5. Intransitive Naturally Reflexive Verbs (iNRVs). iNRVs all represent events that carry “… inherent in their meaning […] the lack of expectation that the two semantic roles they make reference to will refer to distinct entities …” (Kemmer 1993:58), like, e.g., the grooming verbs wash, shave, dress. iNRVs allow object-drop in non-reflexive interpretations (23) and are all mono-eventive verbs. Moreover, they are unergatives (24)-(26). Notice that the unergativity of iNRVs rules out analyses, in which (1) is a transitive structure that involves a reflexive anaphor (e.g. Bergeton & Pancheva 2012). We propose that iNRVs are iNCTs so that (1) has the syntax and semantics in (22). (22) predicts that (1) will be verified both by events of John washing John and of John washed something other than himself, e.g. the dishes, as we have shown to be the case in (23). Examples, like (1), however, are primarily used describe reflexive events and open formulas like \[\exists e.\text{wash}(e) & \text{theme}(x)(e) & \text{agent}(j)(e)\] are prototypically taken to be satisfied by assignment functions in which x is the agent of the washing event; this follows from Kemmer's characterization of NRVs above. The situation is exactly parallel to canonical iNCTs where the encoded content of the root imposes severe restrictions on the type of possible implicit argument; e.g., for eat it is understood to be an amount of food and (2) won't be used if John, say, ate his shoes. Notice finally that, like iNCTs, iNRVs can be both telic or atelic, in both a reflexive and a non-reflexive interpretation (27).

(22) [Voice\text{John}\text{Voice}_{\text{ACT}}[E[\text{vP \text{vWASH}}]]= \exists e\exists x. \text{wash}(e) & \text{theme}(x)(e) & \text{agent}(j)(e) \]

(23) John washed (the dishes).

(24) John washed/shaved his way into a better job.  (X-way-construction; Takehisa 2003)

(25) John out-washed his sister.  (out-prefixation; Sells et al. 1987)

(26) John washed/shaved *(himself) clean.  (secondary predication)

(27) John washed in 5 minutes/ for 5 minutes.  ‘John washed the dishes in 5/for 5 minutes/ John washed himself in 5/for 5 minutes.’

6. Inner-Germanic variation. The English pattern in (1) does not generalize to other Germanic languages. In, e.g., German, iNRVs are infelicitous in reflexive scenarios even though they are clearly iNCTs and are fine in non-reflexive scenarios (28). NRVs are only felicitous in reflexive scenarios in the presence of the SE-anaphor sich (29). The same holds in all Germanic languages with SE-anaphor (Dutch, Scandinavian). We establish the generalization in (30). What distinguishes English from other Germanic languages, then, is not a property of its Voice system, but a property of its anaphoric system; it lacks an anaphoric element that establishes a syntactic dependency with its local antecedent (e.g. Reuland 2011). We propose to understand (30) in a competition model that prefers syntactic operations to arrive at a specific interpretation over non-syntactic ones (Reuland 2001).

(28) Hans hat schon gewaschen.  (29) Hans hat sich schon gewaschen.  ‘Hans has already washed’

‘Hans has washed clothes/himself already.’

‘Hans has washed himself already.’

(30) Only languages that lack light SE-anaphors, allow iNCTs in reflexive scenarios.

7. Conclusion. We have argued that object-drop in a language like English covers not only iNCTs, but also iNRVs. We offered a uniform analysis of the two verb classes that does not use any lexical or syntactic argument structure operations. This captures that (i) object drop is generally unmarked in Germanic and (ii) that English iNRVs are unmarked. We argue that our post-syntactic mechanism to derive the reflexive interpretation of NRVs is superior to lexical treatments (e.g. Reinhart & Siloni 2005) because it captures that even naturally disjoint verbs can enter the intransitive construal in contexts that support a reflexive interpretation.