

Loss of Specifiers in Slavic Reflexives: Acquisitional Structure Reanalysis and Diachronic Change

This paper aims to show that certain errors attested in the acquisition of the reflexive clitics *się* (SE-reflexive) in Polish can be attributed to the pressures imposed by Labeling Algorithm (LA) (Chomsky 2013, 2015) on syntactic structure, which are also responsible for many attested diachronic changes. I argue, therefore, that (i) acquisitional errors offer us a valuable insight into the syntactic settings of Universal Grammar and structural pressures operating wherein; and (ii) there is an important link between language change and language acquisition, which allows us to explain many diachronic processes from the perspective of language acquisition, e.g. as a result of diachronic reanalysis (as in Roberts 2007), and thus reduce the former to the latter. This paper shows that reflexive clitics in Slavic, both in the attested diachronic changes as well as acquisitional facts, give us an opportunity to see the postulated connection between language change and its acquisition (as e.g. in Yang 2000).

Polish children acquire SE-marked structures quite early; by age 3 their use of SE-reflexives is mostly adult-like (see also Rivero & Gołędzinowska 2002). However, close investigation of the corpora collected in CHILDES (MacWhinney 2002)) reveals some common errors, e.g. the omission of SE-clitics in contexts where they are obligatory in adult Polish. A small sample of children's utterances in (1) illustrates that children produce these SE-omissions in various contexts of the use of *się* in Slavic, such as anti-causatives (1a), body-grooming (1b), or inherently marked/reflexiva tantum (1c):

- (1)a. Zepsuła *(się) lampa b. Co *(się) kąpie c. pogniewała *(się)
 broke SE lamp which SE bathes got-angry SE
 Int: 'The lamp broke' Int: 'The one who is bathing' Int: 'She got angry'

(Basia 2;0;Szuman; *bas200*) (Kasia 1;10, Szuman corp, *kas110*) (Wawrzon 2;6, Weist-Jarosz *waw09*)

I will show that these errors can be explained by the pressures imposed on grammar by the labeling requirements, more specifically, by the preference for the head-phrase configuration {X,YP} and dispreference for a merger of two phrases {XP,YP}, as well as two heads {X,Y}. Taking the analysis of SE-reflexives as in Kayne (1975), Marantz (1984), or McGinnis (2004), where these elements are generated as the external argument, with the lower arguments raising to subject position, the omission of *się* in child language is in fact the instance of avoiding creation of the specifier (here, specifier of vP), and thus avoiding the dispreferred configuration of {XP,YP}. I will show that there is ample evidence for analyzing *się* as indeed generated in the subject position. SE-reflexives in Polish are attested in up to twelve different constructions, all of which necessarily involve θ -position for the external argument (with bare unaccusatives barring the use of this reflexive marking (2a), the only possible unaccusatives with SE being derived from the transitive counterparts (2b)).

- (2)a. Jan utonął (*się) w jeziorze. b. Jan utopił {wrogów/się} w jeziorze.
 Jan drowned SE in lake Jan drowned {enemies/SE} in lake
 'Jan drowned in the lake.' 'Jan drowned (his enemies) in the lake.'

The errors attested in the acquisition, when seen through the lenses of an appropriate theoretical basis, offer us a valuable glimpse into the early syntactic structure, revealing important information about the development of language and, as I show later, its diachrony. Here is how labeling theory can account for the facts discussed here.

Chomsky (2013, 2015) assumes that syntactic merger must be labeled at interfaces to be interpreted. In a head-phrase {X,YP} configuration, the Labeling Algorithm (LA) selects the closest head as the label for this Syntactic Object. In a phrase-phrase {XP,YP} merger, on the other hand, it is not obvious which one should serve as the label and something additional has to happen: either movement (3b-c), or feature-sharing between XP and YP, with the shared feature labeling the structure (3d-e).

- (3) a. {XP,YP} Phrase-Phrase Merger
 b. XP...{?{t_{XP},YP}} Minimal search of LA: ambiguous result (X or Y) & movement
 c. XP... {Y {t_{XP},YP}} Label → Head Y after XP has moved
 d. {?{XP_[F],YP<sub>[F]}} Minimal search of LA: ambiguous result (X or Y)
 e. {F {XP_[F],YP_{[F]}} Feature-sharing; Label → a prominent feature F}</sub>

Despite Chomsky presenting labeling of {X,YP} and {XP,YP} as instances of mechanical execution of LA at the point of Transfer, I argue that labeling in these two configurations is not equal. While in {X,YP} the labeling is done immediately, in case of {XP,YP} label determination has to resort to additional operations. This makes labeling of {XP,YP} merger more costly and therefore dispreferred by grammar.

We may then expect that language will show a tendency to eliminate such structures and put the pressure to maximize the preferred option, i.e. head-complement configuration. Acquisitional errors in child Polish may be therefore seen as a way to minimize the dispreferred {XP,YP} merger for the sake of labeling.

I argue that this attempt at structural reanalysis can be observed elsewhere, e.g. in diachronic processes of language change, e.g. a crosslinguistic loss of *wh*-movement. It is a common practice to minimize the dispreferred {XP,YP} merger by losing specifiers and losing the movement that creates them. This is visible in attested cases of diachronic loss of obligatory *wh*-movement from Old Japanese to modern Japanese (Ikawa 1998, Watanabe 2002, Aldridge 2009), from archaic to modern Chinese (Aldridge 2010), or from Vedic Sanskrit to modern Indic languages (Hale 1987). It can be argued that a similar trend triggers the change from Latin to modern Romance, where modern varieties (e.g. French or Spanish (see e.g. Reglero & Ticio 2013)) have been developing *wh-in-situ* strategies. Investigation of the corpora of *wh*-questions in these languages reveal the availability of *wh-in-situ* in up to 39% of contexts (Parisian French; Myers 2007), in contrast to Latin, where such utterances are almost unattested (see also Spevak 2010, Danckaert 2012). Since the configuration of two phrases is dispreferred from the point of view of labeling and therefore diachronically fragile, the fact of the loss of *wh*-movement gets a straightforward account as a way to reduce the dispreferred feature-sharing configuration and maximize head-labeling in a {X,YP} merger.

Apart from the loss of movement, I will show some other ways to lose specifiers. I will discuss how Serbo-Croatian (SC) focus marker *-li* has lost its ability to support a specifier. We can see e.g. that it can't host unambiguously phrasal elements (4a) or remnants of sluicing (4b). As the latter requires licensing under spec-head agreement (Saito & Murasugi 1990), the unavailability of sluicing here is explained.

(4) a. **Čiju ženu li* (Petar) voli?

Whose wife LI Petar loves?

'Whose wife does Peter love?' (Bošković 2001:27).

b. Vidi nekogo. **Kogo li vidi?*

sees someone Whom LI sees

'He sees someone. Who?' (Bošković 2001:26).

A widely documented way to lose specifiers is to reanalyze them as heads, with embedded phrases (especially specifiers of the embedded CP) getting reanalyzed as complementizers. Some examples involve English relative marker *that*, which is derived diachronically from a specifier of CP (van Gelderen 2004), Georgian *wh*-phrase *ray* 'what' reanalyzed as a complementizer *raytamca* (Harris and Campbell 1995), Russian and Bulgarian instrumental case marked *čto* 'what' reanalyzed as comparison complementizer *čem* 'than', Bulgarian 'than how much' (*ot-kolko-to?*) reanalyzed as *otkolkoto* 'than' (Willis 2007), or *co* 'what' used as complementizers in Polish relatives (also attested in SC relatives (Browne 1986)).

In this light, I will argue that the change of Russian reflexive clitic *-sja* from a free morpheme (5a) (Madariaga 2017) to a verbal suffix (by Middle Russian) (5b) is another instance of spec>head reanalysis.

(5) a. Na gore eže *sja* nyne zovet' Ugor'skoje.

on hill which SE now call Ugor'skoe

'On the hill, which is now called Ugorskoe'

b. On boitsja ženu

he fear-SE wife.ACC

'He is afraid of his wife.'

Finally, I will discuss another class of errors attested in the acquisition of Polish SE-reflexives, this time, a non-adult addition of SE-clitics to predicates not allowing these SE-reflexives, such as those in (6) (Szuman and Weist-Jarosz corpora of CHILDES, MacWhinney 2000):

(6) a. **plywała się* (Bartoszl; 8.4) b. **tu się wejde* (Wawrzon 2;7.4) c. **wystygnie się* (Kasia 2;1)

was.swimming SE

here SE enter.FUT

cool.down.FUT SE

I will show that all the predicates where such errors occur are intransitives with a characteristic structural configuration of a head adjunction {v,V}, and the errors result from the grammatical pressure to reduce such mergers of two heads {X,Y} (either base-generated or resulting from movement), which should be analyzed similarly to {XP,YP}, i.e. as an instance of ambiguity resolved either by movement (Roberts 1994) or feature-sharing (Roberts 2010). Children then insert a SE-reflexive as an argument to avoid the dispreferred structure {X,Y}. The fact that this configuration is equally dispreferred (and therefore diachronically frail) is supported by the attested loss of head-movement (e.g. the loss of V-to-T movement in English (Roberts 1993) or the loss of V2 (i.e. T-to-C) in Old Romance or English (Fisher et al 2001)).

The present work aims at unifying some attested historical phenomena with acquisitional facts, emphasizing the causal role of language acquisition in language change, and showing that the pressures imposed on both indeed overlap. I show that these pressures can be deduced from labeling algorithm, which disprefers {XP,YP} and {X,Y} mergers, and which allows us to understand some historical changes and make predictions about their direction, e.g. towards the loss of movement, but not its gain.