Inherent instability and spontaneous change: an Afrikaans case study

Background: In the context of generative approaches to language change, language acquirers are often said to be "the drivers of change": having only indirect access to the grammar of the parent generation (G1), they may postulate a grammar (G2) that differs from G1 in certain ways, resulting in change. Given how successful acquirers are systematically argued to be in the context of generative discussions of language acquisition lacking a diachronic focus, the question that arises is what special circumstances would cause learners to fail so that change may arise? The standard answer to this question is that the Primary Linguistic Data (PLD) to which acquirers are exposed in change scenarios features ambiguities which are not present in respect of components of the grammar which are successfully acquired. This answer, however, raises the further question of what initially *triggered* these ambiguities, as well as what determines the direction of this change. Quite often this trigger is thought to lie outside grammar, resulting form language-contact effects, and some have even argued that all instances of syntactic change result from extra-grammatical effects (Weerman 2006). The question, however, is whether this conjecture is correct and whether grammar-internal properties may also drive syntactic change.

In this connection, Yang (2001:233-4) refers to "inherently unstable" systems, citing the case of a V2 language with pro-drop as an example of such a system, one which will necessarily become SVO with pro-drop. This case is, however, falsified by Old High German, which exhibited V2 and pro-drop (Axel 2008, Axel & Weiss 2010), but subsequently developed into an OV V2 language. Here, we present a case study of a language system which genuinely meets the criterion of "inherent instability" and which can also be shown to develop in a readily predictable direction: the negation system of standard Afrikaans.

The data: Standard Afrikaans was codified in 1925, with various aspects of its structure specifically having been selected for ideological reasons, notably to establish the language as a system distinct from Dutch, born on African soil and thus worthy of official-language status alongside English, the colonial language. Its negation system in particular very strikingly departs from the Dutch systems that were introduced to the Cape in the 17th century and subsequently (den Besten 1986 and Roberge 2000). Specifically, every sentence containing a Negative Indefinite (NI) or a Negative Marker (NM) *nie* must feature the sentence-final negative marker *nie* (with the additional constraint that a sentence may not end with two adjacent NMs; Biberauer 2008):

(1) a. Ek het *nooit* die argument verstaan *nie*
I have never the argument understood NEG
"I have never understood the argument"

b. Ek het *nie* die argument verstaan *nie*
I have NEG the argument understood NEG
"I did not understand the argument"

At the same time, Afrikaans does not exhibit Negative Concord (NC) between multiple NIs, this property having been prescriptively proscribed, despite the fact that Negative Spread is productively attested in pre-standardisation Afrikaans (Roberge 2000):

(2) *Niemand* het *niks* gesien *nie*
Nobody have nothing seen NEG
"No-one saw nothing", i.e. "Everyone saw something" (Double Negation/DN; *NC)

Theoretical context: Zeijlstra's (2004, 2008) theory of sentential negation and NC entails that elements which always independently induce a semantic negation are semantically negative, whereas elements which, in isolation, may induce a semantic negation, but do not do so in combination with other negative elements (e.g. canonical n-words) bear a syntactically visible, semantically non-negative feature [uNEG]. This [uNEG] needs to be checked by a semantically negative ([iNEG-bearing) c-commanding element, which, following Ladusaw (1992), may be phonologically covert.

The inherent instability: On Zeijlstra's analysis, the Afrikaans negation system entails [uNEG]-bearing NMs and [iNEG]-bearing NIs, the only currently known language with this unusual typological profile (cf. Biberauer & Zeijlstra 2011). Only one of these facts can, however, be determined on the basis of the PLD the Afrikaans-acquiring child is exposed to. The systematic co-occurrence (*pace* haplology) of two *nie*s and the fact that *nie* is obligatory with NIs, even in fragment answers, readily leads acquirers to analyse these NMs as [uNEG] elements. An abstract negative operator thus serves as the locus of negation. On the featural composition of NIs, however, the PLD remains silent. Structures like (2) would constitute the crucial input, i.e. DN structures in which each NI induces its own semantic negation would signal to the child that the system they are acquiring features [iNEG] NIs. DN structures are, however, known to be exceptionally rare in natural speech (cf. Horn 1989), and it is thus to be expected that they

would also not constitute a very salient component of the PLD. Furthermore, it has frequently been observed that the intonation associated with DN structures is the same, regardless of whether a language system is NC or not (cf. Liberman & Sag 1974 on the so-called *contradiction contour*, and i.a. Corblin et al. 2004, Rooryck 2009, Biberauer 2009, Biberauer & Zeijlstra 2011). This being the case, DN structures, even if they were to occur in the input, would not enable the Afrikaans-acquiring child to determine whether NIs are [iNEG] or [uNEG]. How, then, does the child converge on an analysis of these elements?

Appealing to Chomsky's (2005 *et seq.*) "three factors" model, we propose that it is not the PLD, nor some UG-based principle, but rather a "Factor 3" principle that allows the child to converge on a solution. Specifically, the proposal is that the economy-oriented acquisition bias in (3), which may be thought of as an LF Elsewhere Principle (cf. Kiparsky 1973), facilitates the analysis of Afrikaans NIs:

(3) *Attribute a marked meaning to marked forms unless there is evidence to the contrary*.

In terms of (3), negative-marked forms are analysed as being semantically negative unless there is evidence to the contrary. On the basis of examples like (1b), the child can therefore conclude that *nie* must carry [uNEG], as assuming that both occurrences of *nie* carry [iNEG] would lead to a compositionality violation. However, since the child receives no evidence either way as to the [i/uNEG] status of NIs (as DN examples are not likely to be part of the PLD and NC systems also permit DN), we might conclude that (s)he should converge on the standard Afrikaans [iNEG] specification as a consequence of (3). Standard Afrikaans negation, then, would not be acquired solely on the basis of the PLD, but because of the *conjunction* of the PLD and the principle in (3).

The empirical evidence (notably, from child language acquisition, pre-standardisation and modern colloquial data), however, suggests that this conclusion is incorrect: Negative Spread, in terms of which (2) means "Nobody saw anything", abounds (Huddlestone 2010). We therefore suggest that the fact that the Afrikaans-acquiring child receives unambiguous evidence that negative-marked elements are *not* always interpreted negatively – the copious input featuring negative elements (NMs and NIs) co-occurring with *nie* – also plays a role in helping them to decide what featural property to ascribe to NIs. Again, this can be plausibly understood as the consequence of a further Factor 3 acquisition principle, Generalisation of the Input (Roberts 2007). Importantly, children who conclude that Afrikaans NIs, like NMs, are [uNEG] will still produce all the negative structures produced by their parents, despite the fact that the underlying structures will be distinct. Thus, while G1 (2) involves one of the [iNEG] NIs being "sealed off" by focus (cf. i.a. Haegeman & Zanuttini 1991, Corblin et al. 2004, Biberauer & Zeijlstra 2011), G2 (2) involves a [uNEG] NI being "sealed off". Consider (4) where *niemand* is focused:

(4) a. NIEMAND het niks gesien nie
Nobody has nothing seen NEG
"NOBODAY saw nothing", i.e. everyone saw something

b. **[**[FOCUS *niemand* **[iNEG]**] het niks**[iNEG]** gesien *nie*[uNEG] **]**
→ 2 [iNEG] features = DN

c. **[***Op*$_{\neg}$**[iNEG]** [FOCUS *Op*$_{\neg}$**[iNEG]** *NIEMAND* [uNEG]]] het **[***niks* [uNEG]**]** *gesien nie*[uNEG] **]**
→ 2 [iNEG] features = DN

As abstract negative operators are automatically postulated for domains featuring [uNEG] elements in which there is no overtly realised [iNEG] element (cf. again Ladusaw 1992 for the original proposal), G2 speakers will postulate an [iNEG]-bearing abstract negative operator for the "sealed off" domain, thus delivering a DN reading via the route employed in NC languages more generally. In addition to the G1-sanctioned negative structures, however, G2 speakers will also produce Negative Spread structures, crucially exhibiting unmarked intonation (i.e. no "sealed off" focus domains), in which multiple NIs deliver a single negative interpretation. This is precisely what is attested in the above-mentioned data. Crucially, once Negative Spread structures become part of the PLD, the inherent instability posed by the standard language's NIs is eliminated: determining whether NIs are [iNEG] or [uNEG] is readily possible on the basis of PLD alone in systems in which multiple NIs deliver a single negative meaning – these NIs must clearly be [uNEG]. This means that there is a natural direction for the standard Afrikaans negation system to develop in: from a system in which NIs are [iNEG] to one in which they, like the NMs, are [uNEG]. This is precisely what we see in the absence of normative input, the latter input being crucial to "preserve" the standard Afrikaans negation system.

What this case study shows, therefore, is that it is feasible to think in terms of "inherently unstable" systems, and that language stability is not guaranteed by UG-compatibility (assuming a role for Factor 1) and learnability considerations only, but also by limits on the type of utterances likely to occur in the PLD and the interaction of Factor 3 considerations.