Typological implications as linguistic evidence

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Within the Principles and Parameters theory (covering both Government and Binding theory (Chomsky 1981) and the Minimalist Program (Chomsky 1995, 2001)) linguistic variation is thought to be constrained by a number of grammatical principles and a number of parameters that have to be set during L1 acquisition. An essential property of parameters is that they appear to be hierarchically ordered. For instance, pro-drop (not in the sense of radical pro-drop (cf. Neeleman and Szendroi (2005)) can only be found in head-first languages. Baker (2001) proposes a Parameter Hierarchy (PH), which constitutes a series of typological implications. Within this line of reasoning, Typological Implications (TIs) form an ideal source of data to derive and evaluate theories of grammar.

In a recent paper Newmeyer (2004) argues against this line of reasoning and claims that TIs cannot be explained by a theory of language structure, but only by theories of language use. He provides two major arguments for this claim: (i) no well-known typological implication is without counterexamples, hence TIs do not have an absolute, but rather a stochastic nature; (ii) if TIs are explained by PH (which is part of UG and therefore considered to be innate) then all TIs should be part of an innate knowledge of language. Newmeyer points out that the latter case is very unlikely: it presupposes that human beings have innate knowledge of a huge series of relations between grammatical phenomena they do not find in the language(s) they capture.

In our paper we argue that Newmeyer's claim that TIs do not provide evidence for theories of grammar does not hold. Regarding the first argument: the fact that all TIs have counterexamples does not pose a problem for a theory that predicts such an implication. It only requires an additional explanation for the counterexample. This holds for instance in the case of V2. Although V2 languages such as Dutch and German are OV languages they do not exhibit OV word order in main clauses (except in cases of object topicalisation). This is however the result of an additional V2 parameter. Dutch and German also exhibit underlying OV structures in main clauses. If such an explanation can be provided, the sky is clear again; if not, then a theory must be falsified. In that case the TI forms a piece of (negative) evidence as well.

The second argument takes parameters, and therefore TIs, in the most radical sense (to an extent Baker does not commit himself to), namely that they are linguistic primitives. Newmeyer is essentially right if he argues that a PH covering all possible linguistic variety is not likely to be the result of the biological endowment with grammar. However, many TIs and parameters are not necessarily linguistic primitives. Many can also be derived notions following from the principles and properties of grammar. In those cases Newmeyer's arguments do not hold anymore, and TIs then prove to be fruitful both in the form of data to build a theory on and as evaluation tools to test the typological predictions certain theories make.

We will illustrate our arguments by an example: it is known (see Zeijlstra (2004)) that every language that exhibits a negative head marker (X°) is a Negative Concord (NC) language, but not the other way round. As we will demonstrate in the following, this TI is derived from standard principles governing the syntax-semantics interface and the acquisition of formal features.

Many languages exhibit NC, i.e. multiple morpho-syntactic instances of negation yield one semantic negation (cf. Haegeman and Zanuttini (1996), Giannakidou (2000) amongst many others). In non-NC languages on the other hand two negations cancel each other out. An L1 learner of Italian is forced to assume that at least one of the two negative elements in (1) is semantically non-negative and therefore uninterpretable. As a consequence, negation in Italian is taken to be a syntactic category, where some negative elements carry a formal feature [iNEG] (being negative operators) and others a formal feature [uNEG]. In Dutch however, every negative element contributes a negation to the semantics. Hence, no element is analysed as being uninterpretable, and therefore in Dutch, negation remains a semantic category and negative elements carry a semantic feature [NEG] (2). NC is thus the result of (multiple) agreement with respect to negation (in the line of Ladusaw (1992), Brown (1996), Zeijlstra (2004)). A prediction that follows from this account is that the possibility for the negative feature to project is restricted to NC languages, since negation is a syntactic category in NC languages only. Feature projection is a syntactic operation and therefore only applicable to features belonging to the syntactic vocabulary. As negative features in non-NC languages are not syntactic features, these features cannot project and hence negative elements can only occupy phrasal positions. In contrast, NC languages do not impose such restrictions on the syntactic status of their negative markers, as is shown in (3). This predicts that NC languages exhibit negative markers of different syntactic status, whereas non-NC languages allow only negative markers that are XP's. Now it follows that every language exhibiting a negative head marker (X°) is a Negative Concord (NC) language but not the other way round.

Our example shows that not all TIs should be thought of as linguistic primitives, and therefore both of Newmeyer's arguments against the use of TIs as linguistic evidence for theories of grammar lose ground. TIs may thus be very fruitful for theories of language structure.



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