Paola Crisma, Cristina Guardiano, Giuseppe Longobardi

Syntactic diversity and language learnability

Supplementary Materials

Part 1: Introduction to the questions for parameter setting

INSTRUCTIONS

1) These Supplementary Materials contain the protocol for the full replicability of the collection of the data used in the article and their coding as parameter states.

2) The present file contains: a short description of the structure of the questions (section 1) and of the conditions of application of the questions (section 2), along with a legenda that describes the table where the questions are listed (section 3). It can be downloaded at https://github.com/CristinaGuardiano/Parameter-setting-Questions.

3) The actual list of questions is in a separate file and will be made available upon request. To get a copy, please send an email to cristina.guardiano@unimore.it.

1.   Formal structure of the questions

Each parameter is associated with one or more questions that can set its state. Each question on its own can set the relevant parameter and is always a YES/NO question asking about the truth of an existential statement of the type "in language L, there is an observable grammatical object (construction/morpheme/feature/etc.) α with property X", or a conjunction of two or more statements of this type.

The questions strictly obey the following properties:

1) YES answers can always be provided just on the basis of positive evidence. For this purpose, all bare plurals in the formulation of the questions are meant to be interpreted as existential rather than generic/universal. We made sure that for every parameter there is at least one question that might be answered YES in some known language. This guarantees the minimal requirement of cognitive plausibility for that parameter, given that language learners can certainly access positive evidence.

2) one YES answer is sufficient to set a parameter's value unambiguously to '+'. In a language, all the manifestations of a parameter should co-vary across languages by definition. Thus, normally, one YES answer correlates with YES answers to all the questions for the same parameter.

By contrast, an answer NO may just be the consequence of the absence of the relevant construction owing to independent combinations of other parameter values or to the accidental lack of the relevant functional morpheme due to lexical idiosyncrasies.

3) if no question relative to a certain parameter in a language receives an answer YES, the value '-' will be assigned by default to that parameter. Therefore, '-' is the unmarked state of each parameter, while '+' is always chosen on the basis of positive evidence.

4) *Stop Questions* (i.e. questions whose YES answer sets the value '-', a state identical to the default one) are reported at the end of the set of questions for each parameter, and marked in purple color. Such questions are not indispensable to the functioning of the setting system ('-' could also be set by default), but may be practically useful to the linguist working on the field, because they provide the value '-' without going through a full list of NO answers. If any of the other questions of a parameter receives an answer YES, the Stop Questions of that parameter will necessarily be found to receive an answer NO, and vice versa.

2.   Conditions of application of the questions

The questions setting each parameter are so formulated as to be properly relevant only if the parameter needs to be set to '+' or '-', i.e. it is not implicationally neutralized in a language owing to the implications with other parameter values (the state marked as '0'): if a parameter is implicationally neutralized in a certain language, the questions for that parameter in that language should be disregarded altogether: they would be irrelevant and in some cases misleading.

Furthermore, some questions also include a set of conditions that must be met for them to apply meaningfully (preconditions), for example the existence in the language of other constructions/morphemes/features/etc. If the preconditions for one question of a parameter do not hold in a language, that particular question must be

disregarded, even if the parameter in the relevant language is not implicationally neutralized (i.e. ends up as '+' or '-').

3.   Legenda

1. The table that follows contains, for each parameter, all the questions usable to set the 94 parameters. This ensures that, following the directions above, the process leading from empirical data (specifically native speaker consultants) to the settings in the Table of parameter states is fully replicable.

In particular:

a.   the green-shaded rows correspond to each of the 94 parameters

b.   the white rows below each green row contain the questions relative to that parameter.

c.   in the green rows:

1st column: progressive number of the parameters (P1, P2, P3, …)

2nd column: acronym of the parameter

3rd column: name of the parameter

4th column: implicational conditions on the setting conditions of the parameter

d.   in the white rows:

1st column: progressive letter of the questions (a, b, c…); Stop question have the lable QSa, b, c…

2nd column: pre-condition(s) of each question, if any

3rd column: text of the question

4rth column: additional notes/information for the fieldworker