Conversational priming through repeating responses as a factor in inflectional change

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1 Change in language

All known human societies are fundamentally shaped by the use of one or several language systems. The core-function of language in a human society is transmitting information, which is encoded and decoded by means of lexicon and grammar. Ideally, a code should be uniform and consistent in time. Yet, it is an empirical observation that all languages change.

Change is omnipresent in language, constantly generating variation at all its levels, including grammar. It is observed that in different languages change in grammar may operate in different ways and proceed at different pace. In recent decades a consensus among linguists has emerged according to which explanatory theories of language and language use not referring to change are impossible. This is valid independently of whether language change is assumed to target particular synchronic states (cf. Haspelmath 2019) or, conversely, typologically common synchronic states are seen as merely reflecting properties of change (cf. Cristofaro 2013, 2014, 2019, 2021). It follows that in order to understand grammar we need a deeper understanding of the principles underlying grammatical change.

2 Change in grammar: causes and principles

In recent years a considerable progress has been achieved in our understanding of these principles. In the domain of inflection, several relevant factors have been identified. Cf. the three-partite model of change in inflection (developed in Hill 2007, 2020, cf. Garret 2008, Fertig 2013, 2015). In this model, three sets of potentially different factors are distinguished: (a) triggers of change, which make the inherited word-form inconvenient and/or prone to replacement, (b) pre-existing encoding patterns, which provide a range of possible models for replacement of the inherited word-form by a new one, (c) selectors, which are responsible for the choice of one particular model-pattern. Similar models have been suggested for change in syntax, see Mithun (2003), Fischer (2007), and Seiler (2015) among many others.

These and similar models of change in grammar provide a theoretical frame-work for describing and partially explaining numerous instances of change in different languages. What remains to be understood is how the innovations, once emerged, are implemented in the grammar of a language. Since language use presupposes the existence of a language system in the minds of speakers, any grammatical innovation necessarily starts with an individual speaker. However, languages are typically used by communities of speakers to which hundreds, thousands or even millions of individuals (of varying age and varying degree of competence in the relevant language) may belong. It follows that understanding grammatical change presupposes a model of how grammatical innovations, such as new past tense forms of verbs or new case forms of nouns, spread among the individual speakers and become the new norm in a language community.

This problem has been traditionally approached in different ways, depending on which part of a language community is assumed to generate the innovations (cf. Croft 2000: 42–78, Drinka 2010, Luraghi 2010). A family of theories attribute grammatical change to juvenile speakers and their incomplete learning of their first language. Another family of theories sees the locus of grammatical change in adult learners using the language in question as their second or third language system. Both positions presuppose that grammatical innovations are capable of spreading from innovating to more conservative speakers, being ultimately adopted also by the

latter. But why does this happen? What is the mechanism by which a conservative speaker of a language might adopt and use a new grammatical form as an admissible variant or, ultimately, a substitute of the inherited form (s)he used before?

3 The role of repeating responses in inflectional change

A very recent idea attributes the transfer of new grammatical forms from innovating to conservative speakers to a phenomenon which may be called conversational priming through repeating responses (cf. Gipper 2020). The potential relevance of psychological priming for language change has been repeatedly discussed in the field (cf. Loebell & Bock 2003, Jäger & Rosenbach 2008, Eckardt 2008, Traugott 2008, Garrod & Pickering 2013, Nilsson 2015, Kootstra & Şahin 2018). However, the specific role of repeating responses as a mechanism potentially propagating grammatical innovations is a very recent insight.

Repeating responses most typically occur as a reaction to the so-called polar questions (cf. Holmberg 2016, Enfield et al. 2019). In many languages polar questions are either answered with yes/no or, quite often, by repeating a part of the question. This phenomenon is well documented for numerous languages spoken in different parts of the world (cf. Ishikawa 1991, Stivers 2005, Bolden 2009, Gipper 2020). Cf. (1) for contemporary colloquial Russian.

(1)	Repeating responses in Russian				
a.	Na ulice **xolodno**?	-	**Xolodno**.	/	Ne **xolodno**.
	Is it cold outside?		Yes.		No.
b.	Maša **sdala** ėkzamen?	-	**Sdala**.	/	Ne **sdala**.
	Did Masha pass the exam?		Yes.		No.

It can be assumed that highly conventionalized repeating responses as given in (1) are a factor responsible for spreading of new grammatical forms from innovating to more conservative speakers. Having to verbatim repeat a part of the question in order to give an answer, a conservative speaker is not merely passively exposed to new grammatical forms in the speech of others but has to actively use such forms in her or his own utterances. Using new forms in one's own speech may greatly facilitate their integration into one's own grammatical system as admissible variants which can ultimately replace their inherited predecessors.

4 In search of diachronic evidence

This hypothesis is already supported by some synchronic evidence (cf. Nilsson 2015 for Swedish in Northern Europe, Gipper 2020 for Yurakaré in South America). What remains to be done is to test whether the effect can be demonstrated on long-term diachronic data. This can probably be achieved by investigating the implications of the hypothesis for particular types of grammatical constructions. By their very nature, repeating responses can be expected to yield asymmetrical behaviour of particular grammatical forms. It can be assumed that the role of repeating responses in propagating innovations may become especially visible in those parts of grammar which are affected by such asymmetries.

Asymmetries generated by repeating responses might be partly universal, i.e. potentially present in all languages, and partly specific for languages with particular grammatical properties. A potentially universal asymmetry is, for instance, the difference between verb-forms in the 1st and 2nd persons of the singular on the one hand and the rest of the inflectional paradigm on the other. For obvious reasons, the former are never repeated as such in repeating responses (but have to substitute each other), whereas all other paradigmatic forms may and/or have to be repeated (cf. 2 for Russian).

(2)	Potentially universal asymmetry in repeating responses (Russian)				
a.	Ty **letiš'** v Pariž?	-	**Leču**.	/	Ne **leču**.
	Will you fly to Paris?		Yes.		No.
b.	Ja **leču** v Pariž?	-	**Letiš'**.	/	Ne **letiš'**.
	Will I fly to Paris?		Yes.		No.
c.	Maša **letit** v Pariž?	-	**Letit**.	-	Ne **letit**.
	Will Masha fly to Paris?		Yes.		No.

A language specific asymmetry is, for instance, the difference between tense forms of verbs in languages possessing a past or future tense with auxiliary verbs. In such a language, questions in present tense require repeating responses containing the same verb-form, whereas in the past or future tenses often only the auxiliary is repeated (cf. 3a and b for German). A further language specific asymmetry pertains to the difference between the simple and compounded verbs (cf. 3c and d for dialectal Lithuanian, similarly in Svan according to Harris & Campbell 1995: 94–95).

(3)	Language specific asymmetries in repeating responses (German and dialectal Lithuanian)				
a.	**Darf** er das fragen?		Er **darf**.		**Darf** er nicht.
	Is he allowed to ask that?		Yes.		No.
b.	**Hat** er das fragen **dürfen**?	-	**Hat** er.	-	**Hat** er nicht.
	Was he allowed to ask that?		Yes.		No
c.	Ar Jonas **valgė**?	-	Jis **valgė**.		
	Did Jonas eat?		Yes.		
d.	Ar Jonas **su-valgė**?	-	**Su**.		
	Did Jonas eat up?		Yes.		

The hypothesis of repeating responses facilitating the propagation of grammatical innovations in language communities implies that such asymmetries should have an observable effect on the speed of change in different parts of grammar. The universal asymmetry between the 1st/2nd singular of verbs and the rest of the inflectional paradigm (illustrated for Russian in 2) seems to imply that these particular verb forms should be universally less prone to change and/or changing slower. The language specific asymmetries (given in 3) imply more inclination toward change and/or a faster pace of change respectively in the present and simple past tense of German or English verbs (as opposed to their periphrastic past tense) and in Lithuanian simple verbs (as opposed to their compounded counterparts).

5 Corroborating observations and future prospects

As is probably always the case with hypotheses of the given kind, some corroborating evidence is easily found. It is widely known that in English such verbs as *to help*, *swell* etc. adopted the more regular 'weak' inflection (*helped*, *swelled*) in the simple past centuries earlier than in the periphrastic past perfect (*has holpen*, *swollen*, cf. Jespersen 1954: 71–75). In the archaic Lithuanian dialect island of Lazūnai the inherited present tense 3rd person *aic* 'goes' (reflecting Old Lith *eiti*) seems to be much better preserved in compounds (such as *at-aic* 'approaches, comes') than in the simple verb where it is most often replaced by *aima* (cf. Vidugiris 2014: 198–200).

Whether such scattered observations are just random artifacts of change in particular languages or, rather, reveal a diachronic trend due to priming by repeating responses, can only

be established in large-scale investigations of the relevant corpora. This remains a task for the future.

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