

On the Relationship between Grammaticalization and Comparative Linguistics

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1 Introduction

The late Eric Hamp, one of the most important American historical linguists of the 20th century,^① once said that historical linguistics was to be regarded as the “queen of historical sciences”^②. Hamp was referring to historical linguistics as it has traditionally—that is, since the early 18th century—been practiced in the West, what is generally known as “Historical Comparative Linguistics” or simply “Comparative Linguistics”.

Relatively recently, since the mid-1980s, another paradigm for examining language history has emerged: Grammaticalization. Writing over a decade and a half ago, in 2004, I observed that there was ample evidence that grammaticalization had “arrived” as a movement within the study of language history. In particular, I wrote then (Joseph 2004: 45):

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⇒);

Among the evidence that points towards such a ‘movement’ are the following indicators. First, there is a huge amount of relevant literature now, with textbooks and surveys (e.g. Lehmann 1982/1995), Heine, Claudi & Hünemeyer 1991; Hopper & Traugott 1993; Diewald 1997; two dictionaries or similar compendia (Les-sau 1994; Heine & Kuteva 2002), singly-authored studies (e.g. Bowden 1992; Heine 1993, 1997; Ziegeler 2000; Kuteva 2001, to name a few), and numerous edited volumes (such as Traugott & Heine 1991; Pagliuca 1994; Ramat & Hopper 1998; Wischer & Diewald 2002, among many others) all dedicated to different aspects of the study of grammaticalization phenomena. Second, there are now many conferences devoted to aspects of grammaticalization.

In the roughly 15 years since then, the number of works and conferences and such dealing with grammaticalization has only increased, seemingly exponentially, and some of the works cited above have been revised and have come out in updated editions (e.g. Hopper & Traugott 2003, Lehmann 2015, Heine et al. 2019).

Even though I have been critical of grammaticalization along a variety of dimensions (see Joseph 2001, 2003, 2004, 2006, 2011, 2014), my goal today is not to add to these critiques. Rather, I intend to explore the relationship between these two paradigms for studying language change—traditional historical linguistics and grammaticalization—through a consideration of a couple of empirical examples and what they reveal about the similarities and differences in how these two paradigms approach the facts of grammatical change.

2 A bit of history, leading to foundational principles and methods

Appropriately enough for a discussion of paradigms to approach language history, I start with a bit of history of the emergence of the field. This brief historical survey serves also to highlight various key foundational principles for understanding language change and key methods used to study it.

The beginnings of historical comparative linguistics in the West date to the early 19th century with the work of two scholars in particular being foundational: Franz Bopp (of Germany, 1791 – 1867) and Rasmus Rask (of Denmark, 1787 – 1832). Both were among the earliest scholars who focused on the study of the ancient Indo-European languages and who worked especially with materials from Sanskrit making comparisons with the classical languages of Europe. In doing so, they pioneered the comparative methodology that is at the heart of historical linguistic research to this very day. ^③

The 19th century development of historical linguistics was the basis for the development of linguistics as a science. The stunning successes of the so-called “Neogrammarian” scholars—figures, besides Bopp and Rask, such as Jakob Grimm (of Germany), Karl Verner (of Denmark), Hermann Grassmann (of Germany), and Karl Brugmann (of Germany), among numerous others—especially with regard to the exceptionless nature of sound change, i.e. the principle of regularity of sound change (“Ausnahmslosigkeit”), gave a predictive character to historical investiga-

tions that established it as a scientific enterprise.

It is important to consider what it means to be a “historical science”. By a “science”, what is meant is a quest for knowledge and understanding of some subject matter that is observable and from which data can be collected, organized, codified, and, more generally, analyzed, in such a way as to allow for predictions to be made about new data. By a “historical science”, what is meant is a science whose subject matter must have something to do the past. On both criteria, historical linguistics certainly qualifies.

A basic issue in any historical science is how to fill in the gaps in the historical and prehistorical record. This issue is based on the simple fact that the record and documentation of history are necessarily spotty and imperfect, so that inferences about intermediate stages and hypothetical prior states need to be made. William Labov, in his 1994 opus on studying language change, put it this way: historical linguistics is the “art of making the most of bad data” (though cf. Janda & Joseph 2003 regarding substituting “imperfect” for “bad”). Thus, a lot of what we do in historical linguistics is a type of internal reconstruction, working with an understanding of how languages change in general to try to work out what the steps were that led from one attested or posited stage to a later attested or posited stage.

Some very precise and powerful tools are available to guide historical linguists in this exercise of filling in the gaps, both already alluded to above:

- the regularity of sound change (as a principle)
- the comparative method (as a methodology).

It should be noted that these are perhaps more precise and powerful than anything available for historical endeavors in other areas (e.g. literary history or political history or even biological history, i.e. evolutionary investigation).

A basic element of all historical linguistic studies is comparison, in at least two distinct but related ways:

- comparing two stages of the same language to see what is different between them (what can be referred to as “vertical comparison”)
- comparing two different languages that have sprung from a common source (what can be referred to as “horizontal comparison”).

A further necessary part of the comparative study of any grammatical system is a concern for where the system and its pieces came from. This concern is common in traditional studies in historical linguistics and is the driving force behind modern studies within the grammaticalization framework.

This historical and essentially philosophical overview of the study of language change offers the necessary foundation for considering how different frameworks deal with the same set of facts. In the next two sections, **casestudies** from within the Indo-European language family form the basis for a comparison of the different approaches.

2 words, thus:
“case study”

3 **Casestudy** # 1

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As a first case study through which to explore differences between a traditional historical linguistic approach and a grammaticalization ap-

proach, I turn to the matter of personal endings and personal pronouns in Proto-Indo-European. Early Indo-European comparativists such as Rask **and** Bopp noticed similarities between some reconstructible personal endings for verbs and some pronominal forms, e.g.

1SG. ENDING	*-m(i) (cf. Greek -mi, Slavic -mb, Sanskrit -mi)
1SG. ACCUSATIVE	*me (cf. Greek me, Sanskrit mā)
1SG. DATIVE	*moi- (cf. Greek moi, Latin mī(-hī), Sanskrit ma(-hyam)) delete space / close up thus: ma(-hyam)
3SG. ENDING	*-t(i) (cf. Doric Greek -tī, Slavic -tb, Sanskrit -ti)
3PERS. DEICTIC	*to- (cf. Sanskrit tad, Latin (is) tud)

The similarity in form is suggestive, to be sure, and thus intriguing, perhaps pointing to a derivation of personal endings on verbs from pronouns that originally signalled the overt subject associated with the verbs in question. Moreover, the relationship that is implicit in recognizing such a similarity is certainly plausible, especially if one keeps in mind the observation made by Givón (1971), an earlier harbinger of grammaticalization, that today's morphology is yesterday's syntax. That is, a putative sequence of VERB # SUBJECT PRONOUN can be hypothesized as the predecessor to the VERB+PERSONAL ENDING structure. ④

Nonetheless, though plausible, such a hypothesis is not without some potential problems. For one thing, it may not be sensible syntactically to posit a stage of early Indo-European in which verbs were followed by subject pronouns (thus, a V-S order), as this is an order

which is not found consistently in any branch of the Indo-European family except for Celtic and thus is probably not the best reconstruction for Proto-Indo-European (PIE) or a stage prior to that. Second, and more important, it is actually not easy to motivate the passage phonetically from VERB # *to* ... \rightarrow VERB+ *t(i)* for third person or from VERB # *mV*... \rightarrow VERB+ *m(i)* for first person. Saying it is not easy to motivate does not mean that processes cannot be invoked to accomplish that outcome. In fact, one can simply posit that a final syllable was apocopated, which is a quite ordinary process in sound change; however, what makes it hard to motivate this is that there is no independent evidence for such a process for PIE. And, in the various languages that sprung from PIE, even prosodically weak pronouns, such as the unaccented enclitic forms like 1SG accusatives Greek *me* and Sanskrit *mā*, do not show reduction to just a consonantal core. Therefore, such an account could only work if there were a sound change that was specific to a grammatical category, e.g.

XXXX # *to* X # \rightarrow XXXX + *t* when *to* is the subject pronoun

However, such a sound change, by referring specifically to subject pronoun *to*, violates the Neogrammarian principle—a crucial building block for understanding language change in the traditional approach under consideration here—of regularity of sound change, because such regularity is achieved through sound change being blind to the grammatical category of items it operates on and just operating at the level of sound sequences.

Therefore, the plausible connection posited by Bopp could not stand up to scrutiny according to accepted Neogrammarian principles

of sound change and thus must be rejected as a viable account of the origin of the personal endings for Indo-European verbs.

Moreover, some other seemingly attractive connections that could be made, such as the 2SG verbal ending *-*si* (cf. Sanskrit -*si*, Latin -*s*) and the 2SG pronoun base suggested by the Greek 2SG accusative pronoun *se*, also fail once the regular sound correspondences that provided the basis for positing regular sound changes are taken into account. In particular, Greek *s-* corresponds not to Sanskrit -*s-* but rather to Sanskrit *tv-*, as shown by the equating of Greek *sakos* ‘shield’ with Sanskrit *tvac-* ‘skin’.^⑤ Therefore, assuming regularity of sound change, and from that the regularity of sound correspondences across related languages, the Greek pronoun *se* would be expected to match a form with *tv-* in Sanskrit, and that is precisely what is found, as the 2SG pronoun base in Sanskrit is *tv-*, as in nominative *tvam*, accusative *tvām*, locative *tvayi*. Thus Greek *se* is from PIE **twe*, not **se*, and thus does not match the personal ending *-*si* very well at all from a historical perspective. Moreover, just to cover all possibilities, it turns out that Greek *h-* is the element that regularly corresponds to Sanskrit *s-* (e.g. Greek *hepta* ‘seven’ = Sanskrit *sapta*), so that a starting point with PIE **s* would yield a form with *h-* in Greek, demonstrating further that Greek *se* cannot be from **se*.

delete space /
thus: ‘skin’

Thus once again, the regularity of sound change, a principle which was unknown to Bopp and thus he is not to be faulted for not adhering to something he could not have known about, proves to be a guiding beacon in refining our understanding of the likely prehistory of subject-marking affixes in Indo-European.

Furthermore, additional forms came to light after Bopp's time, especially with the discovery of Hittite in the early 20th century as an Indo-European language of great antiquity, that affected the viability of Bopp's pronoun-to-personal ending analysis. For instance, in Hittite, there is a sound that is transcribed as *-ḫ* and derives from PIE so-called "laryngeal" consonants and this sound occurs as the nucleus for a 1SG verbal ending (e.g. the past tense ending *-ḫun*). This laryngeal consonant is also associated in most branches of Indo-European with the lengthening of a preceding vowel; thus, another 1SG ending **-ō* found in many of the languages, often alongside the ending **-mi* referred to above (e.g. Latin and Greek *-ō*), can be decomposed and reconstructed further as **-o-H*.^⑥ This **-H*-nucleus for a 1SG ending shows no connection with any first person pronominal form. In addition, Hittite shows a 2SG ending *-tta* that derives from **to*, thus not matching well in form with a second person pronominal (**tw-*) nor in function with the reconstructible **to-*, which is a deictic third person pronominal. Thus with this added data from Hittite, it became less compelling to try in general to derive personal endings from pronominal forms.

Notably, Bopp's conjectures were certainly an early attempt to do what grammaticalization studies now focus on, namely to offer speculation as to the source of grammatical morphemes. Thus what is an attractive hypothesis from a grammaticalization perspective turns out not to be viable within a traditionally based historical linguistic approach. The lack of success of these attempts shows the importance of keeping in mind the Neogrammarian principle of regular and phonetically conditioned sound change.

4 Casetudy # 2

2 words, thus:
“Case study”

A second case study allows for a similar point and again highlights the difference between a grammaticalization approach and a traditional approach to a set of historical facts. In this case, the data comes from Albanian and concerns the 2PL nonpast ending, as discussed by Rasmussen (1985) and Joseph (2010).

The ending in question is *-ni*, as seen in 2PL present form *keni* ‘you all have’, and the 2PL imperative *kini* ‘have!’. The facts that are relevant here are the following curious (i.e. unexpected) properties:

- delete v • the intervocalic *-n-* in **keni/kini* is unusual, since the ending is the same in the two major dialects of Albanian, Geg (north) and Tosk (south) even though usually an intervocalic *-n-* in Geg corresponds to an *-r-* in Tosk (so-called “rhotacization”)
- it can be used with nonverbal items, e.g. the greeting *mirëdita* (‘Good day!; hello’) can be “pluralized” if addressed to more than one person, thus *mirëditani!*, and the interjection *forca!* ‘heave-ho’, which if addressed to multiple people can be *forcani!*
- in the imperative plural, with a weak object pronoun, the pronoun occurs inside of (i.e. to the left of) the plural marker *-ni*, e.g.

singular	<i>hap!</i>	‘Open!’
plural	<i>hapni!</i>	‘Open!’
singular	<i>hap-e</i>	‘Open it!’
plural	<i>hap-e-ni!</i>	‘Open it’ (not: * <i>hapni(j)-e!</i>)

The etymology for this ending that was proposed by Rasmussen is that it derives from the PIE adverb **nū* ‘now’, seen in Greek *nū* and Old English *nū* (modern English *now*). Its development can then be explained in the following way. If it originated in the PIE word for ‘now’, then presumably it started in imperatives, since imperatives are a class of utterances where a reinforcing element like ‘now’ is appropriate; e.g. *shiko* ‘see’ / **shiko* # *ni*! “See now” (cf. English *See here!* with the reinforcement ^{by} ~~of~~ a different deictic element). This sequence must have been interpreted as marking imperative, and if the distinction was *Shiko!* vs. *Shiko ni!*, then a likely re-interpretation would be as marking singular vs. plural, as number is a relevant distinction in Indo-European imperatives (and verbs) more generally. As a plural marker, it could come to be more tightly bound to the verbal form, thereby losing its integrity as a free adverb, and yielding forms like *shiko + ni* for the plural imperative. That reanalysis would then allow it to spread to other 2PL forms, especially the present indicative.

This account explains the curious characteristics of *-ni* noted above, as well as other details about its use. First, in particular, the lack of rhotacization in Tosk is explained since the *ni* was originally an independent word and thus not word-internally intervocalic at the time of the rhotacization change. Second, the restriction of *-ni* to nonpast contexts, specifically the present indicative and the imperative (note that the 2PL past ending is *-t*) is explained by the original semantics of the source form, in that ‘now’ would not be an appropriate meaning to combine with past tense forms. Third, the ability of *-ni* to attach to non-verbs, e.g. *mir*~~A~~*editani* cited above, is explained by the fact that

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in this analysis *-ni* originally was a more freely occurring adverb and not an ending restricted to verbs. Finally, the occurrence of weak object pronouns inside of *-ni* in the imperative plural (e.g. *hapeni* ‘(you all) open it!’) is understandable since in the original syntactic construction, the weak pronoun would attach to the verbal form—the so-called Wackernagel’s Law second-position placement of prosodically weak forms—and the adverb, as a free word, would have followed that combination. This account thus explains the synchronically unusual behavior of *-ni* by reference to its original status and the persistence of certain characteristics as tracer bullets, as it were, shedding light on the origin of this ending.

Moreover, this account is bolstered by parallels on the phonological side, consistent with what is known about regular sound changes in Albanian, since the change of **ū* to Albanian *i* in final position occurs also in *thi* ‘pig’ < **sū* (cf. Sanskrit *sū* ‘pig’, Latin *sūs* ‘pig’).

The principle of regularity of sound change is important here in two ways. First, it is to be invoked with regard to rhotacization and why this change does not apply in the case of *-ni*. Second, it is relevant regarding the shift in the vowel, in the change of **ū* to *i*. Moreover, comparison, a hallmark of traditional historical linguistic methodology, is important in this account through the recognition of cognate forms in other languages (e.g. *nū*, *sū*-).

A grammaticalization account here would not have access to regularity of sound change as it does not recognize the purely phonetic basis of sound change that is at the heart of regularity. It would thus not be able to properly avail itself of this bedrock principle of histori-

cal analysis. Moreover, a grammaticalization approach would not add any greater understanding to the developments with **nū* that are outlined above. All that grammaticalization can really contribute here is the ability to attach a label to the carryover of an element's earlier characteristics into the behavior of its success or in later stages of the language; that is, Hopper (1991), working within a grammaticalization paradigm, refers to this fact about language history as the "principle of persistence", namely that the properties of a grammatical element reflect properties of its historical source element.

It must be admitted that to some extent, this "principle" seems like just a matter of common sense, in that it is to be expected that the nature of the starting point for a particular development is going to have an effect on where it can go after that. Nonetheless, the label proposed by Hopper is a convenient one that sums up the insight that many traditional historical linguists have been working with. In that way, perhaps it is not anything that needs to be elevated to the level of a guiding "principle" articulated within a framework but rather is just a "rule of thumb" that we operate with in studying language change.

5 Conclusion

Given the results from the case studies in Sections 3 and 4, it should be clear that traditional historical linguistics offers insightful accounts of the developments under examination whereas grammaticalization at best duplicates those efforts but only at the expense of giving up a well-established principle, namely regularity of sound change. In following

time-tested methodology in our historical analyses, regardless of the framework, when it comes to understanding grammatical change, we are not necessarily doing “grammaticalization” or “traditional historical linguistics”. Rather, we are simply doing “historical linguistics” and, with the right methods (e.g. the Comparative Method) and principles (e.g. Regularity of Sound Change) to guide us, we are simply doing it well.

Notes

① For appreciations of Hamp’s career and contributions, see Meckler (2019); Friedman (2020); Greenberg (2020); Joseph (2020).

② This characterization was offered during an invited lecture at The Ohio State University in March 2004.

③ See Joseph (2016) on Bopp and the Comparative Method, held by Calvert Watkins (see Watkins 1995: 4) as “one of the most powerful theories of human language put forth so far and the theory that has stood the test of time the longest”. It is one of the most powerful ^{tools} ~~tool~~ there is for historical research in general and especially for historical linguistic research, as discussed below.

④ I am using # here to indicate a word boundary and + to indicate a word-internal morpheme boundary.

⑤ The semantics of this connection are that a skin was used to create a shield by being stretched over a frame.

⑥ In most of the literature on Indo-European, a capital (or for some, lower-case) “h” is used as the symbol for the laryngeal consonant that yielded the Hittite “^h”.

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