Chapter 1:
Linguistic Area and Grammaticalization Theory

Is Europe a Linguistic Area?

Bernd Heine and Motoki Nomachi

The topic “Europe as a linguistic area” has a history of more than a century. A number of people in the past have tried to find out whether it is possible to define the languages of Europe on the basis of linguistic criteria as one areal unit independent of genetic relationship. And the kinds of questions that have been asked by them are in particular:

(1) Is there something like a European area that can be defined linguistically, and if yes, how can it be delimited from other parts and other areas in the world?
(2) Is there anything that could be defined as the areal center?
(3) Are there any linguistic properties setting European languages off from languages in other parts of the world?
(4) If Europe really is a linguistic area, what are the motivating forces underlying areal relationship?
(5) Is it possible to divide the languages of Europe into significant smaller units, independent of genetic relationship?

The research history on this general issue can be divided into three different phases. The first attempt was made in the course of the 20th century, and it all started with people taking a deep interest in Indo-European linguistics. The basic idea was that a good European language is an inflectional language, a language that looks like German or Russian or Latin, reflecting the Indo-European inheritance in all its glory. From around 1990 onwards, a different perspective emerged; linguists now had become devoted descriptivists, their goal was to describe languages
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comprehensively and as minutely as possible, to get rid of the biases that had been there previously, and these linguists were looking for “objective” criteria of classifying the languages of Europe. This was done most of all within a project that was sponsored by the European Economic Community, which provided generous funding for research on the languages of Europe, and the result was the EUROTYP project, uniting a larger number of linguists from all parts of Europe. In the course of this work, a number of areal classifications were published. By far the most important classification with reference to areal relationship in Europe was that by Martin Haspelmath, who published a paper in 1998 on what he called Standard Average European, a term adopted from Benjamin Lee Whorf.¹ Haspelmath argued that it is possible to maintain that there is a European linguistic area which is due to specific historical factors, namely the following:

(i) Retention of Proto-Indo-European structures and processes of assimilation of non-Indo-European to Indo-European languages.
(ii) Influence from a common substratum of a pre-Indo-European population in Europe.
(iii) Contacts during the great transformations at the transition from late antiquity to the early Middle Ages in Europe.
(iv) Latin and the common European culture of the Middle Ages.
(v) The common European culture from the Renaissance to the Enlightenment.

These are the main factors that Haspelmath² found to be responsible for the development of a European linguistic area, and he proposed the following catalogue of linguistic features defining this area:

(i) Definite and indefinite articles,
(ii) postnominal relative clauses with inflected, resumptive relative pronouns,
(iii) a possessive perfect ("have"-perfect) formed with "have" plus a passive participle,
(iv) a preponderance of generalizing predicates to encode experiencers,
(v) a passive construction formed with a passive participle plus an intransitive copula-like verb,
(vi) a prominence of anticausatives in inchoative-causative pairs,
(vii) dative external possessors,
(viii) verbal negation with a negative indefinite,
(ix) particle comparatives in comparisons of inequality,
(x) equative constructions based on adverbial-relative clause structures,
(xi) subject person affixes as strict agreement markers, and
(xii) differentiation between intensifiers ("emphatic reflexives") and reflexive pronouns.

This is not the only catalogue that has been proposed to define Europe’s linguistic unity; for a survey of alternative lists, see Heine and Kuteva.³ But of all proposals that were made, the one by Haspelmath is distinctly the most convincing, for a number of reasons, perhaps the main one being that it rests on sound crosslinguistic comparisons that allow to place Europe in a worldwide typological perspective.

On the basis of Haspelmath’s survey it is possible to classify the languages of Europe into several groups depending on how many of the twelve properties they possess: Languages showing the highest number of features are restricted to Western Europe, whereas languages located more towards the periphery of Europe, or generally languages in Eastern Europe, do not quite show what one might expect to find in a “Standard Average European” language.

Accordingly, Haspelmath⁴ argues that there is a nucleus in Europe, characterized by the presence of nine of the twelve features distinguished

⁴ Haspelmath, “The European Linguistic Area.”
and consisting of Dutch, German, French and northern Italian dialects – though not central or southern Italian dialects – which is most centrally European in this notion of Europe. Then there is a core, which consists of Romance languages plus the Slavic languages Czech and Bulgarian, and also non-Slavic languages known from the Balkan area, namely Albanian and Modern Greek. Next, there is what he calls “the periphery,” consisting of East Slavic languages, Baltic languages, and a few others. And finally, there are languages which are outside Europe as a linguistic area – mainly the Celtic languages, which he excludes from linguistic Europe.

While we think that this is the most relevant proposal that has been made to date on the areal linguistic unity of the continent, there remain a number of questions, the most central being: Is it really possible to argue that there is a European sprachbund or linguistic area and, if yes, does it have clearly defined boundaries? Suppose we took any randomly chosen geographical region in the world, would we find there less linguistic homogeneity across genetic boundaries than we find in Europe? Then there is also the following related question: To what extent are the areal relationship patterns to be found in Europe the product of what is a commonplace in areal linguistics, namely that two neighboring languages are likely to be more similar to one another than two languages that are not neighbors – in other words, is geographical vicinity the defining factor of areal linguistic relationship? Furthermore, to what extent are these patterns the product of the criteria used to identify them? For example, if one were to choose a set of criteria based on worldwide cross-linguistic, rather than Europe-specific parameters, how likely is it that Europe would stand out as a typological unit? If you were, e.g., a Slavicist and you decided that Russian was a good candidate for a linguistic nucleus of Europe, and you designed a set of criteria meant to be diagnostic of Europe from the perspective of a scholar familiar only with Slavic languages, couldn’t it happen that a European linguistic area would look quite different from the one that Haspelmath and others proposed? Note further that the European Economic Community was founded by Germany, France, the Benelux countries and Italy, and it is exactly the languages of these nations that turn out to be the nuclear European languages. So the question is whether or to what extent such classifications may not be the
product of the (presumably unconscious) political motivations of those who designed them, or who sponsored the research that gave them rise? This may be a strange question, but we think it needs to be raised.

And there is yet another problem that one has to be aware of. So far there is not a single feature that sets European languages off from other languages, i.e., that is found in Europe but nowhere else in the world. And, conversely, there is also no property that is found everywhere else in the world but not in Europe – not a single property.

The conclusion then is that quite some substantial work has been done in the field of areal unity in Europe and that we now know considerably more about this issue than we did two decades ago. Nevertheless, we have to be aware that the state of the art is still very far from what would be desirable.

This was the research situation that Heine and Kuteva were facing when they decided to look into the problem of areal linguistic relationship in Europe. The conclusion that they arrived at was that a new perspective is required, namely one that, while building on the progress that had been made in this field, would highlight certain factors that had not been considered in much detail in previous work. One of these factors concerned linguistic variation. Unlike EUROTYP-type research, which had concentrated mostly on uniform languages at the expense of linguistic diversity below the level of fixed standard languages, they concluded that much more attention should be paid to other forms of sub-standard variation.

Second, one should be aware that linguistic influence and linguistic patternings are essentially continuous rather than discontinuous, so this has to be taken into account as well. Third, what one should look at in more detail is what they call grammatical replication, rather than borrowing. This is a distinction that was proposed by Weinreich, when he used the term “borrowing” for the transfer of substance or “matter,” that

5 Heine and Kuteva, The Changing Languages of Europe.
7 Yaron Matras, Language Contact (Cambridge: Cambridge University Press, 2009).
is, phonological or phonetic material or sound-meaning elements like loanwords and so on. “Replication,” by contrast, concerns “patterns,” structure, or meaning without phonetic substance. And finally, Heine and Kuteva⁸ argued that one should also take grammaticalization work into consideration in studying areal relationship in Europe, and in the present paper we are going to present a few examples of the latter.

The Rise of Auxiliary Constructions

The first example is about the structure of the verb phrase in European languages, more specifically about a case where some specific word behaves like a lexical verb on the one hand and like a functional category expressing distinctions of tense, aspect, modality, etc., on the other. The grammatical status of such words is frequently controversial; while some authors would treat them as belonging to one and the same grammatical category, others assign them to different categories. The present section is concerned with such a case of “doublets”; it deals with a set of four constructions associated with verbs for “threaten” in European languages.⁹ The following example of the Portuguese verb ameaçar “to threaten” illustrates these constructions, which we will refer to as C1, C2, C3, and C4.

(6) Portuguese¹⁰

a seu irmão ameaçava destruir os planos de seus sobrinhos. C1
her brother threatened destroy the plans of her nephews
“Her brother threatened destroying the plans of her nephews.”
b A firma **ameaça** falência. C2
  the firm threatens bankruptcy
  “The company is threatened by bankruptcy.”

c uma [...] melodia de amor [...] **ameaçava** não acabar. C3
  a melody of love threatened never to finish
  “A melody of love “threatened” to never end.”

d um gordo e rubicundo merceeiros [...] **ameaçava** estalar C4
  a fat and reddish merchant threatened to tear
  tôdas as costuras da farda.
  all the seams of costume
  “A fat, reddish trader was about to burst out of all seams of his attire.”

In the C1 construction of (6a), *ameaçar* functions as a lexical verb whose meaning can be paraphrased as in (7a), while in all remaining constructions there is what we propose to call functional *ameaçar*. The meaning of the latter, roughly paraphrased in (7b), has been described variously as an epistemic, subjective, modal, semi-modal, evidential, or temporal-aspectual auxiliary. C2 differs from C1 in having an inanimate rather than a human subject, and C4 differs from C3 in having a human rather than an inanimate subject. While C1 and C2 are lexical constructions, C3 and C4 can be described as “subject-to-subject raising” constructions. Table 1 summarizes the main grammatical properties of the four constructions.

(7) A paraphrasis of the meaning of lexical (a) and functional “threaten” (b)
  a “Someone points out that s/he intends to do something that is undesirable to someone else.”
  b “Something undesirable is about to happen.”
Table 1. Distinguishing properties of the four “threaten” constructions

<table>
<thead>
<tr>
<th>Construction</th>
<th>The subject referent is human</th>
<th>“threaten” takes a subject argument</th>
<th>“threaten” expresses a speech act</th>
<th>Meaning of “threaten”</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>Lexical</td>
</tr>
<tr>
<td>C2</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>Functional</td>
</tr>
<tr>
<td>C3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Functional</td>
</tr>
<tr>
<td>C4</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>Functional</td>
</tr>
</tbody>
</table>

Portuguese is Europe’s most westerly language but, as table 2 shows, roughly the same situation is found in other languages across Europe, and it is not restricted to Indo-European languages, it also includes Finno-Ugric languages such as Hungarian and Estonian. Differences among all these languages relate in particular to the following points: First, the degree of productivity differs among the languages concerned. While C1 is fully productive in all languages, the remaining constructions may differ in the extent to which they can be used productively. On the one hand there are languages such as Dutch, German, Spanish, or Portuguese, where all constructions are fully productive; on the other hand there are also languages where one of the constructions is severely restricted in its occurrence, to the extent that it has more in common with idiomatic expressions than with regularly used grammatical constructions. Second, the meaning of functional “threaten” is not exactly the same across languages; in some languages it is more strongly associated with epistemic modality while in others it is the notion of a proximative aspect (“be on the verge of doing X”) or of evidentiality (concerning the source of information for a proposition) that is more pronounced. Third, the morphosyntactic constructions are also not really identical in the languages concerned. While most of the languages present the complement of the “threaten”-verb in the C3 and C4 constructions as an infinitival phrase, as can be seen in the Portuguese example of (6), some languages use a finite complement clause instead, as illustrated with the following examples from Hungarian, where there is a complementizer (hogy) and a finite verb in the complement clause.
(8) Hungarian (Ferenc Hörcher, p.c.)

a A fal azzal fenyegetett, hogy ledől.  
the wall with.that threatened that it.falls  
“The wall threatened collapsing.”

b Fenyegeto! volt, hogy Mária elájul.  
threatening it.was that Mary s/he.lose.conscience  
“Mary threatened fainting.”

And finally, not all languages distinguish all constructions. More generally, it is the most easterly European languages that show the smallest range of constructions. Thus, in Russian, Bulgarian and Greek, only the first two of the four constructions are found; cf. the overview in table 2.

Table 2. Degree of grammaticalization of “threaten”-constructions in European standard languages (Parentheses = use of the construction is either marginally possible or is restricted to certain contexts)

<table>
<thead>
<tr>
<th>Language</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portuguese</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Spanish</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>French</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>(+)</td>
</tr>
<tr>
<td>Italian</td>
<td>+</td>
<td>(+)</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Friulian</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Rumanian</td>
<td>+</td>
<td>+</td>
<td>(+)</td>
<td>-</td>
</tr>
<tr>
<td>English</td>
<td>+</td>
<td>(+)</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Dutch</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>German</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Danish</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Norwegian</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Swedish</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Estonian</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Serbian</td>
<td>+</td>
<td>+</td>
<td>(+)</td>
<td>-</td>
</tr>
<tr>
<td>Bulgarian</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Slovak</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Slovene</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Russian</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Greek</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hungarian</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Upper Sorbian</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>
Perhaps not surprisingly, Slavic languages situated in the central Europe have developed more “threaten” constructions than Slavic languages spoken in eastern Europe. Thus, Slovak, Slovene have all four constructions as in German.\(^{11}\) Examples (9) through (11) illustrate the constructions with Slavic languages of Central Europe.

(9) Upper Sorbian C3

\[
\text{Wulka woda} \ hrozy \ \text{stare město přepławić.}
\]

big water threatens old town to.flood

“The high water threatens flooding the old town.”

(10) Serbian C3

\[
\text{Drvo preti da padne.}
\]

tree threatens to fall

“The tree risks falling down/is about to fall down.”

(11) Slovene C4

\[
\text{Mož grozi, da bo zbolel.}
\]

husband threatens, that will be ill.

“My husband “threatens” falling ill.”

As shown in Heine and Miyashita,\(^ {12}\) the presence of these constructions across Europe must be the result of language contact, for the following reasons. First, we are not aware of any language outside Europe that would exhibit the same kind and range of constructions. Second, genetic relationship can be ruled out as a possible explanation: Neither did Proto-Romance, Proto-Germanic, nor any other early European language distinguish these constructions. At the same time, the constructions are found in different language families in Europe, including families that are – as far as we know – genetically unrelated (Indo-European and Finno-Ugric). And third, the rise and development of these constructions took

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11 We wish to thank Sonja Wölke, Ana Drobnjaković, Andreja Žele and Alja Lipavic-Oštir for the examples that they provided on Upper Sorbian, Serbian and Slovene, respectively.

12 Heine and Miyashita, “Accounting for a Functional Category.”
place roughly around the same general period in the history of European languages (see below).

Our knowledge of the diachronic processes leading to the presence of this “polysemy” pattern in European languages, while limited, still allows for a couple of generalizations. The first concerns chronology: There are a few historical records that make it possible to date the changes that are responsible for the structural diversity characterizing the “threaten”-constructions in the modern European languages. These historical data are summarized in table 3;\(^\text{13}\) what they suggest is the following: The lexical C1 construction was the first to exist; except for French, it was essentially the only construction to be found in European languages prior to the 16th century. C2 appears to have been next to arise, to be followed by C3 and, from the 18th century onward, by C4. Thus, there is a diachronic sequence C1 \(\rightarrow\) C2 \(\rightarrow\) C3 \(\rightarrow\) C4 which is largely in accordance with what grammaticalization theory would have predicted.\(^\text{14}\)

This chronology furthermore suggests that the grammaticalization of “threaten”-constructions must have originated in French, since it is attested there first, subsequently being replicated in other languages of western Europe, where it is attested only several hundred centuries later. This hypothesis can be reconciled with extra-linguistic observations on European history: Paris was in a culturally and intellectually privileged situation around the time between the 12th and the 14th centuries, being a center of cultural diffusion across much of the western half of Europe. Accordingly, there is reason to assume that the development from lexical to functional “threaten” started out in northern France as part of a more general cultural diffusion process affecting a larger part of Europe.

The diffusion of this grammaticalization process in central and eastern Europe appears to be a more recent development, being weak-

\(^{13}\) For more details, see Heine and Miyashita, “Accounting for a Functional Category.”

\(^{14}\) As pointed out in Heine and Miyashita, “Accounting for a Functional Category,” the reconstruction based on grammaticalization theory using synchronic evidence yields the following development: C1 \(\rightarrow\) C2 \(\rightarrow\) C3/C4. This reconstruction is less specific than the one based on historical records since it does not determine whether C3 preceded or followed C4.
est in eastern Europe, where the process has not proceeded beyond the C2 construction. Neither genetic nor typological factors constituted any significant boundaries in this diffusion process, which affected Indo-European languages in much the same way as their Finno-Ugric neighbors Hungarian and Estonian, both sharing a long history of intense contact with German (cf. table 3).

Table 3. A chronological overview of first attestations of stages in the grammaticalization of “threaten”-constructions in European languages

<table>
<thead>
<tr>
<th>Construction</th>
<th>French menacer</th>
<th>Spanish amenazar</th>
<th>German drohen</th>
<th>Dutch dreigen</th>
<th>English threaten</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Before 1100</td>
<td>Before 1500</td>
<td>Before 1500</td>
<td>Before 1500</td>
<td>Before 1500</td>
</tr>
<tr>
<td>C2</td>
<td>1200</td>
<td>1495</td>
<td>1560</td>
<td>1627</td>
<td></td>
</tr>
<tr>
<td>C3</td>
<td>1200</td>
<td>1494</td>
<td>1738</td>
<td>1566</td>
<td>1780</td>
</tr>
<tr>
<td>C4</td>
<td>1751</td>
<td>19th century</td>
<td>ca. 1800</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The second kind of generalization concerns the grammaticalization process that gave rise to the “threaten”-constructions. This process proceeded gradually from lexical to grammatical to even more grammatical structures along the following stages:

C1: At the beginning there was only a lexical construction which consisted of “threaten” as a control verb taking an agentive subject acting intentionally.

C2: The transition was made possible when the lexical C1 construction was allowed to take inanimate subject referents treated metaphorically like human agents. Inanimate subjects are incompatible with agents acting intentionally and with the semantics and valency of “threaten.” While in the new construction “threaten” still had the morphosyntactic format of a clausal predicate, its lexical meaning was desemanticized, giving way to that of the functional notion “something undesirable is about to happen” (2b).

C3: The presence of inanimate subjects and a verb expressing a grammatical function paved the way for the rise of the auxiliary-like “raising” construction, with “threaten” increasingly acquiring the properties of
an auxiliary, and an infinitival complement assuming the role of the new main verb.\textsuperscript{15}

C4: The endpoint was reached when C3 was no longer restricted to inanimate subjects but was generalized to also take human subjects; accordingly, the emerging C4 construction is characterized by lack of the animacy constraint.

This example of “threaten”-constructions confirms most of what we observed earlier: First, contact-induced grammatical replication is clearly structured, proceeding unidirectionally from less grammatical to more grammatical structures, in the present case from lexical verb to auxiliary. Second, this example also shows that contact-induced grammatical change has both a language-internal and an external component. The change is internal since it is in accordance with universal principles of grammaticalization\textsuperscript{16} and, hence, could as well have happened without language contact; as the rich literature on grammaticalization shows, similar processes from lexical verb to auxiliary structure without involv-

\textsuperscript{15} In languages such as Slovak and Hungarian this was not a verbal infinitive complement but rather a finite complement clause. Here are the examples from Slovak (Dušan Deák, p.c.).

\begin{itemize}
\item[a.] \textbf{Hrozí} že ju zabije. C1
threatens that her kill
“He threatens to kill her.”
\item[b.] \textbf{Hrozí} (nám) potopa. C2
threatens (to.us) flood
“The flood is ‘threatening’ (us).”
\item[c.] \textbf{Hrozí}, že budze potopa. C3
threatens that will.be flood
“There ‘threatens’ to be a flood.”
\item[d.] \textbf{Hrozí}, že Dušan ochorie. C4
threatens that Dušan will.get.ill
“Dušan ‘threatens’ to fall ill.”
\end{itemize}

ing language contact are well documented.\(^{17}\) The external component relates to the fact that the process was propelled by language contact – it is unlikely that a process that took place in a number of European languages about the same time in Europe’s history but – as far as we know – nowhere else in the world, could be accounted for in any way other than in terms of language contact. Third, the process followed roughly the same lines of diffusion as other processes that have been identified in Europe.\(^{18}\) Taking off in a Romance variety of northern France, it spread over much of western, central, southern, and northern Europe, and eventually also to eastern Europe. Fourth, all evidence available suggests that the agents of diffusion were also located in the political, religious, and intellectual elites rather than the masses, and it was written rather than spoken communication that played a crucial role in the process.

**Possessive Perfects**

Possessive perfects (“have”-perfects), where a possessive verb is used both to encode possession (12a) and verbal aspect or tense (12b), can be considered to be a paradigm areal property of European languages: Nearly all languages of western and central Europe have one while outside Europe their occurrence is extremely rare.\(^{19}\) The following discussion is largely confined to some morphosyntactic properties of the categories concerned. Thus, issues that have figured prominently in the relevant literature, such as the semantic development from possessive via resultative to perfect (anterior) and to past tense meanings,\(^ {20}\) or the relationship between “have”- and “be”-periphrasis, are not considered here.\(^ {21}\)


\(^{18}\) See especially Heine and Kuteva, *The Changing Languages of Europe.*

\(^{19}\) Haspelmath, “The European Linguistic Area.”


\(^{21}\) We wish to thank Andriy Danylenko, Bridget Drinka, Zygmunt Frajzyngier, Victor Friedman, Tania Kuteva, and Ulrich Obst for helpful comments and insightful suggestions on an earlier version of this section.
As argued for in Heine and Kuteva, possessive perfects evolved in the languages of Europe roughly in the course of the last two millennia as a result of the grammaticalization of possessive constructions, more precisely of constructions for predicative possession of the “have”-type. On the basis of their evolution and structural characteristics, the following four main stages of evolution can be distinguished:

0: There is a possessive “have”-construction, like in (12a), but no possessive perfect.

1: There is now a resultative use pattern where the subject of the possessive verb is no longer conceived as a possessor but rather typically as an agent referentially identical with that of the verb constructed in the past passive participle (PPP), and the construction expresses a state of affairs resulting from the completion of the action denoted by the PPP-verb. At this stage, the construction exhibits many or all of the following properties: (a) Only transitive verbs are allowed as main verbs. (b) The PPP-verb still has the structure of a modifier of the patient, agreeing with the patient noun phrase in case, number, and/or gender (if there are such morphological categories). (c) Nevertheless, the possessive verb tends to be interpreted as an auxiliary and the PPP-verb as the new main verb. (d) Both the possessive and the PPP-verbs tend to be associated with one and the same agent.

2: The main new properties are: (a) Instead of being transitive, the main verb may be intransitive; cf. (12b). (b) A possessive interpretation is now ruled out. (c) Agreement in number and gender be-

22 Heine and Kuteva, *The Changing Languages of Europe.*
between the main verb and the object gradually disappears, that is, the PPP-verb tends to be presented in one invariable form. (d) There is no more ambiguity, that is, there is only one agent, which can no longer be interpreted as a possessor.

3: The possessive perfect is now fully established and no longer subject to constraints: (a) Instead of human agents there may now be inanimate “agents.” (b) There are no or hardly any restrictions on the kinds of verbs serving as main verbs.

Perfect (or anterior) categories found in the languages of the world have a limited number of conceptual sources. Among these sources, possessive constructions are extremely rare; most of them are found in Indo-European languages of Europe and languages influenced by them. More importantly, however, possessive perfects conforming to the 4-stage model sketched above are found essentially only in Europe. On typological grounds therefore it seems unlikely that such constructions arose independently in different European languages; rather, the rise of these constructions must have been due to historical factors. Accordingly, Heine and Kuteva propose the following hypotheses:

(a) The spread of possessive perfects across Europe is mainly due to language contact.
(b) The diffusion of these constructions across languages did not involve borrowing, that is, a transfer of form-meaning units, but rather the replication of a process whereby a possessive construction was grammaticalized to a construction marking aspect (in some cases later on also tense).
(c) The process was unidirectional, conforming to the four stages sketched above.

Old Church Slavonic (863–950 AD) had a past passive participle formed exclusively from transitive verbs, but it had no possessive per-

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24 See Bybee et al., *The Evolution of Grammar.*
flect, and there was also no possessive perfect in the earliest forms of Island Celtic, Baltic, and Balto-Finnic languages. According to a widespread view, the ultimate donor of European possessive perfects was Ancient Greek. Thus, Drinka argues that a new transitive periphrastic perfect formed with “have” + active aorist participle is found already in the writings of the 5th century BC tragedians Sophocles and Euripides as well as in Herodotus. Greek is said to have provided the model for Latin: It was Latin authors thoroughly educated in Greek who replicated the possessive perfect in Latin. In the absence of a Greek-type active aorist or perfect participle, those Latin writers used their own past passive participle (PPP) as a complement for the verb habere “have.” The Latin construction subsequently spread across the Roman Empire, including the Greek-speaking areas of the east.

The possessive perfect of modern European languages has its roots in early Latin. As a result of a gradual process, the possessive perfect emerged in Late Latin as a distinct periphrastic active aspect category of stage 1. It denoted current relevance of a past event (= present anterior), spreading into narrative contexts. It is only after the 6th century that a stage 2 perfect began to emerge, subsequently spreading to other languages of western Europe.


28 Drinka, “The Development of the HAVE Perfect.”
According to Haspelmath,²⁹ possessive perfects diffused across Europe at the time of transition between antiquity and the Early Middle Ages. In Iberian languages, habere was superseded by later reflexes of Latin tenire “to hold” as a possessive verb, and possessive perfects based on tenire emerged fairly late. The Spanish tener-perfect gradually rose from the 13th century on, and up to now it is confined to transitive verbs, that is, it did not proceed beyond stage 1. The Portuguese ter-perfect on the other hand has reached stage 2: It has spread to intransitive verbs.³⁰

That possessive perfects spread via replication from Romance languages to Germanic is a plausible hypothesis, but it is not uncontroversial.³¹ In English, the rise of the possessive perfect goes back to the earliest stages of Old English, where it was used only in possessive contexts as an early stage-1 construction associated with resultative uses, while an advanced stage-1 possessive perfect must have existed in North Germanic from the Runic Scandinavian languages to Edda, and German appears to have turned into a stage-2 language by around 1000 AD.

A historical reconstruction of the spread of the possessive perfect is urgently required; what surfaces from the sketchy information that is available, however, is that language contact must have played quite some role in its diffusion. The result is that all Romance and Germanic languages are nowadays stage-3 languages. But this situation contrasts sharply with that to be found in what we will loosely refer to as Europe’s “linguistic periphery.”

The situation in the modern Finnic, Slavic, Baltic, Celtic languages, and in Basque tends to be portrayed as one where there is essentially no possessive perfect. Table 4 summarizes this situation with reference to the stages distinguished above. In spite of all the research that has been carried out on the possessive perfect, the situation in many Slavic lan-

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³¹ See Heine and Kuteva, *The Changing Languages of Europe*, Section 4.3 for discussion.
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Languages is still far from clear, especially with reference to which stage a given construction has attained; we have come across quite a number of controversial classifications on this issue, and the following generalizations therefore have to be taken with care.

Table 4. Stages of possessive perects in “peripheral” European languages

<table>
<thead>
<tr>
<th>Language</th>
<th>Family</th>
<th>Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finnish</td>
<td>Finnic</td>
<td>+</td>
</tr>
<tr>
<td>Lithuanian</td>
<td>Baltic</td>
<td>+</td>
</tr>
<tr>
<td>Standard Russian</td>
<td>Slavic</td>
<td>+</td>
</tr>
<tr>
<td>Welsh</td>
<td>Celtic</td>
<td>+</td>
</tr>
<tr>
<td>Irish</td>
<td>Celtic</td>
<td>+</td>
</tr>
<tr>
<td>Polish</td>
<td>Celtic</td>
<td>+</td>
</tr>
<tr>
<td>Ukrainian (dial.)</td>
<td>Slavic</td>
<td>+</td>
</tr>
<tr>
<td>Belorussian (dial.)</td>
<td>Slavic</td>
<td>+</td>
</tr>
<tr>
<td>Czech</td>
<td>Slavic</td>
<td>+</td>
</tr>
<tr>
<td>Slovak</td>
<td>Slavic</td>
<td>+</td>
</tr>
<tr>
<td>Upper Sorbian</td>
<td>Slavic</td>
<td>+</td>
</tr>
<tr>
<td>Slovene</td>
<td>Slavic</td>
<td>+</td>
</tr>
<tr>
<td>Serbian / Croatian</td>
<td>Slavic</td>
<td>+</td>
</tr>
</tbody>
</table>

32 Main source: Heine and Kuteva, *The Changing Languages of Europe*, Section 4.4. As for the possessive perfect in Kashubian, see Motoki Nomachi, “On the Periphrastic Perfect in Kashubian Literary Language,” *Nishi Surabugaku Ronshu* 11 (2008), pp. 4–23. Though the Kashubian possessive perfect is well grammaticalized and an inanimate subject is also possible:

*Wiater mie miôł... wëwïôné. (Stanislaw Janke, p.c.)
Wind me had brandished
“The wind had brandished me”*

33 As for the detailed grammatical and semantic features of the possessive perfect in Slovene, see Motoki Nomachi, “Ot possessivnosti k aspektual’nosti: distrubutsia glagolov *imeti i biti* v slovenskom iazyke v tipologicheskom osveshchenii,” *Slavia Meridionalis* 6 (2006), pp. 65–90.

34 According to Radivoje Mladenović, “Govor šarplaninske župe Gora [The dialect of Šar Mountain region Gora],” *Srpski dijalektološki zbornik* XLIII (2001), in Prizren dialect of Serbian language has the possessive perfect like in Macedonian:
Note that the structure of the possessive perfect is not the same across all the languages. In the Romance and Gemanic languages, predicative possession is built on what is called in Heine\(^{36}\) the action schema \([X \text{ has } Y]\), relying on a more or less transitive “have”-verb. Accordingly, the possessive perfect also has some features of a transitive structure, where e.g. the agent is encoded as the subject of the clause. In some other languages, different conceptual schemas have been employed. Thus, in the Celtic languages it was the goal schema \([Y \text{ is to } X]\) and in North Russian and Estonian the location schema \([Y \text{ is at } X]\) that were recruited – with the effect that the resulting morphosyntactic structures of the perfect in these languages are strikingly different from those of Romance or Germanic languages, in that the agent is encoded as a locative argument rather than as the subject of the clause. The following example from Estonian may illustrate this situation.\(^{37}\)

<table>
<thead>
<tr>
<th>Language</th>
<th>Family</th>
<th>(+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgarian</td>
<td>Slavic</td>
<td>+</td>
</tr>
<tr>
<td>Breton</td>
<td>Celtic</td>
<td>+</td>
</tr>
<tr>
<td>Southern Thracian Bulgarian</td>
<td>Slavic</td>
<td>+</td>
</tr>
<tr>
<td>Kashubian</td>
<td>Slavic</td>
<td>+</td>
</tr>
<tr>
<td>North Russian</td>
<td>Slavic</td>
<td>+</td>
</tr>
<tr>
<td>Estonian</td>
<td>Finnic</td>
<td>+</td>
</tr>
<tr>
<td>Southwestern Macedonian</td>
<td>Slavic</td>
<td>+</td>
</tr>
</tbody>
</table>

Imam urabotano
1.SG.have worked.PPP.SG.N.
“\(I\ \text{have worked.}\)”

35 In Burgenland Croatian in Austria, sporadically “possessive perfect like” construction can be found, even if not wholly grammaticalized. It has no grammatical agreement between PPP and accusative object:

Čuda ljet sam imao naručeno časopis. (Martin Meršić)
Many years 1.SG. am had ordered.PPP.SG.N. magazine.ACC.SG.M.
“I\( \text{ had been ordering the magazine for many years.}\)”

It is possibly the result of language contact between German and Burgenland Croatian.

36 Heine, *Possession*.

In the location schema of the Balto-Finnic language Estonian, the possessor is expressed as a locative complement marked with the adessive case (ADE) and placed typically clause-initially; nevertheless, it has some properties of a subject. The possessee on the other hand is marked as the subject which controls agreement. Thus, the possessive stage 0, illustrated in (13a), can be glossed literally as “a new car is at me.” The patient may take a past passive participle verb (PPP), the construction expresses a resultant state where the “possessor” can be understood to be either a possessor (i) or an agent (ii): The possessor is on the one hand the owner of the patient referent or the person affected by the resulting state, cf. (13b).

In other uses, this construction can only be interpreted meaningfully as a stage-1 perfect, especially when the formal subject is suppressed, as in (13c). This marks the transition to a stage-2 perfect, where the verb marked with the PPP is intransitive, as in (13d). But Estonian does not appear to have developed a stage-3 perfect, where the construction would be used with inanimate locative participant. This example may show that the absence of a “have”-verb was apparently no obstacle for Estonian speakers to develop a possessive perfect – what they did is that they simply grammaticalized their location-based possessive construction into a perfect.

(13) Estonian

a Mu- l on uus auto. Stage 0
  I- ADE be.3.SG new car
  “I have a new car.”

b Mu- l on auto pestud.
  I- ADE be.3.SG car wash.PPP
i “My car is washed.”
ii “I have washed the/my car.”

The reader is referred to Kuteva and Heine and Heine and Kuteva\textsuperscript{40} for exemplification of the stages presented in table 4. What this table is meant to show is the following. First, it is most of all those “peripheral” languages that have had a history of intense contact with Germanic or Romance languages which have created a more advanced possessive perfect, such as Breton with French, Estonian with German, and North Russian presumably with Scandinavian languages. Second, with the exception of the southwestern dialects of Macedonian,\textsuperscript{41} none of these languages has developed a stage-3 perfect as it is generally found in the Romance and Germanic languages. This is in fact to be expected since replicated categories tend to be less grammaticalized than the categories that provided the model. And third, and this is again most relevant for the purposes of the present paper, the replication of possessive perfects followed the same sequence of stages as we observed it in the case of “threaten”-auxiliation, allowing for implicational predications of the form: If a language has reached stage X then it has also reached all preceding stages. The fact that there is no language that has, say, a stage-2 perfect but not a stage-1 perfect suggests that diachronically the sequence of grammaticalization was stage 0 > 1 > 2 > 3.

\textsuperscript{40} Kuteva and Heine, “On the Possessive Perfect”; Heine and Kuteva, \textit{The Changing Languages of Europe}.

\textsuperscript{41} Southwestern Macedonian overlaps with Standard Macedonian since the latter is based on western dialects. Note that Macedonian shows an areal patterning of stages, ranging from stage 3 in the southwest to stage 1 in the northeast. See Friedman, “Dialectal Synchrony”; Mišeska-Tomić in this volume.
Conclusions

The main goal of the present paper was to illustrate what is meant by dynamic typology based on grammaticalization theory, and how it applies to a given geographical region. It could do no more but provide with two examples, both relating to the contact-induced grammaticalization processes from verbal to auxiliary construction, to give you an impression of the kind of processes that contributed towards linguistic unification in Europe. Research along these lines is still in its infant stages; I suspect that what has been uncovered in the course of the past few years represents no more than the peak of the iceberg of what can be expected from more detailed research in this field.

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