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Sune Gregersen [iD]

Amsterdam Center for Language and Communication, University of Amsterdam, Amsterdam, The Netherlands

Review article of Petar Kehayov 2017. *The Fate of Mood and Modality in Language Death: Evidence from Minor Finnic* (Trends in Linguistics. Studies and Monographs 307), Berlin, De Gruyter Mouton, xix + 385 pp. €99.95

ABSTRACT
The article is an in-depth review of Petar Kehayov's monograph *The Fate of Mood and Modality in Language Death: Evidence from Minor Finnic* (De Gruyter Mouton, 2017). The book investigates the development of mood and modality in four moribund Finnic languages spoken in the Russian Federation: Votic, Ingrian, Central Lude, and Eastern Seto. After a detailed summary of the book, I discuss a number of issues relating to (a) the semantic map used to analyze the modal meanings; (b) the difference between language death-related changes and "regular" language change; and (c) the explanation of the observed patterns in terms of conceptual complexity. On the last point, I suggest that usage frequency may provide a better explanation for some of the observed changes.

1. Introduction

The monograph under review here is a revised version of the author's habilitation thesis (LMU Munich) and is based on extensive fieldwork on four moribund languages spoken in the northwest of the Russian Federation. Its main object of study is the changes undergone within the functional domain of mood and modality in moribund languages, and the author (K) advances the hypothesis that these changes follow certain semantic regularities. Specifically, he proposes that "units of higher conceptual complexity tend to be more susceptible to loss, change and innovation than units of lower conceptual complexity" (p. 297). In other words, more conceptually complex modal expressions are more likely to be lost or changed than less complex ones.

CONTACT Sune Gregersen ✉ s.gregersen@uva.nl Amsterdam Center for Language and Communication, University of Amsterdam, P.O. box 1642, 1000 BP Amsterdam, The Netherlands

The four languages investigated by K all belong to the Finnic branch of the Uralic language family. The Finnic languages historically form a dialect continuum around the eastern parts of the Baltic Sea. Only two of these – Finnish and Estonian – are official languages on a national level, while the rest have limited or no official recognition. Two of the languages included in K's investigation, Votic and Ingrian, are generally classified as separate languages by scholars, whereas the other two are not: Central Lude is a subdialect of Lude, which some linguists (Turunen 1988) have classified as a dialect of Veps, others as part of a larger continuum of Karelian dialects (Viitso 1998); Eastern Seto is a subdialect of Seto (or Setu), which together with Võro is usually treated as a South Estonian dialect, though scholars also recognize that South Estonian is "markedly different from Standard Estonian" (Laakso 2001, 181). As K rightly points out, though, however the individual varieties are classified has no bearing on their relative value for linguistic investigations, and the language-death phenomena observed in Central Lude and Eastern Seto are no less interesting than those found in the "independent" languages Votic and Ingrian. For the sake of convenience, I will refer to all four varieties as 'languages' in the following.

The book presents a wealth of data, running upwards of four hundred pages and containing more than sixty numbered tables and figures. For this reason I will begin the review article with a relatively detailed summary in Section 2, which is then followed by a brief overall evaluation in Section 3. Section 4 goes on to raise a number of points relating to the analysis of modality (Section 4.1), the identification of phenomena peculiar to language death *vs.* language contact and change more generally (Section 4.2), and the explanation of the observed changes in terms of conceptual complexity (Section 4.3). On the last point, I will suggest that usage frequency may be a more likely explanation for a number of K's observations. I illustrate my points throughout with examples both from the book and from a number of other languages and corpora.

2. Summary

The book contains ten chapters and two appendices with glossed examples of elicited data. Appendix I gives an example of a translation task where a consultant was asked to translate a Russian text into Eastern Seto. Appendix II contains excerpts of an interview with a speaker of Central Lude. In addition, there are indices of the subjects and Finnic languages treated, along with a substantial bibliography running just short of thirty pages (pp. 345–374).

Chapter 1, "Introduction", outlines the structure and goals of the study and the central assumptions about language death (LD) underlying it. These are, in somewhat condensed form:

(i) The linguistic change that can be observed in LD is not entirely identical to linguistic change in other circumstances.

(ii) Different conceptual and grammatical domains in LD are not affected in the same way or at the same speed.

It is pointed out that the existing literature on LD has tended to focus on sociolinguistic issues and only presented "interesting but non-systematic observations" (p. 1) on grammatical change. By contrast, K's investigation targets a specific domain of grammar, mood and modality, in order to collect systematic data on how it is affected and to "submit implicational statements about the relative susceptibility of different modal values to loss, change and innovation" (p. 2). The second major goal is then to propose explanations for these differences.

The study of LD and the most important existing works are introduced in Chapter 2, "Language death: Current state of the research". The general consensus in the literature is that LD consists in "the disruption of intergenerational transmission" (p. 5) of a language, either as a result of a gradual or sudden shift to another language or, in rarer cases, the death of the entire population of speakers. The term is thus not synonymous with language *extinction*: a language is said to be extinct when it has no native speakers left, whereas the "death" metaphor refers to the whole time span from the disruption of transmission to extinction. K discusses some of the problems with this metaphor but decides to stick to it because of its currency in the literature. The remainder of the chapter provides a concise and very readable survey of earlier scholarship, focusing first on the perceived similarities and differences between LD and phenomena such as pidginization and language attrition in immigrant communities, and then on the structural characteristics that have been observed in gradual LD, i.e., when speakers of one language gradually switch to another (the "dominant" language). These include various types of lexical and grammatical reduction, such as paradigmatic levelling, increased constructional iconicity ("one meaning, one form"), and loss of redundancy, as well as high degrees of borrowing from the dominant language. In addition to the borrowing of free lexical items this may include bound morphemes and grammatical structures and categories, i.e., both *matter* and *pattern* borrowing in the sense of Matras and Sakel (2007).

Chapter 3 provides an overview of "Mood and modality: Definitions, semantic values and their organization". As the chapter makes clear, there is far from universal agreement about how this semantic field is best delimited and analyzed. K follows the common approach where modality is defined functionally as the semantic domain of possibility and necessity, whereas mood is defined formally as the grammatical (morphological) expression of modality. In addition, however, 'mood' is also traditionally

used for inflectional categories expressing clause type ("sentence mood"), such as imperative clauses. These are included in the investigation as well.

The analysis of modal values is based primarily on the semantic map proposed by van der Auwera and Plungian (1998) and van der Auwera, Kehayov, and Vittrant (2009) and also used in the handbook chapter by Kehayov and Torn-Leesik (2009). This framework splits the semantic field first into possibility *vs.* necessity, then into epistemic *vs.* non-epistemic modality, and the latter of these in turn into participant-internal *vs.* participant-external modality. Further subdivisions are possible, most importantly that between circumstantial and deontic participant-external modality. A simplified version of K's map is presented in Table 1.

Participant-internal modality concerns the capabilities and needs of a participant, whereas the participant-external types include (a) possibilities and necessities dependent on the circumstances and (b) permissions and obligations dependent on some authority, for instance, another person or the law – this type is termed 'deontic' here and in most other works on the subject. Epistemic modality, finally, expresses the degree of certainty that a proposition is true.

In addition to the basic framework shown here in Table 1, K gives an outline of some of the many other notions that have been suggested in the literature. Most of these are "complex" values which, like 'participant-external', are used to group other types together. K notes that at least four different terms have been used more or less synonymously in the literature to cover the non-epistemic values, i.e., the three first columns in Table 1: 'root', 'agent-oriented', 'situational', and 'event' modality. The fact that some of these terms have also been used with other meanings only adds to the confusion. For instance, 'root' modality is used by Gamon (1993) and Bybee, Perkins, and Pagliuca (1994, 178, 191–194) in a much more specific sense, which excludes both participant-internal and deontic meanings, and 'situational' modality for Nuyts and Byloo (2015) refers to a specific subtype of participant-external modality. Other questions discussed are whether the

Table 1. Central modality values in the study.

Non-epistemic possibility			Epistemic possibility
Participant-internal possibility	Participant-external possibility		
Dynamic possibility	Circumstantial possibility	Deontic possibility (permission)	
Dynamic necessity	Circumstantial necessity	Deontic necessity (obligation)	Epistemic necessity
Participant-internal necessity	Participant-external necessity		
Non-epistemic necessity			

semantic values 'possibility' and 'necessity' are discrete (as suggested by Table 1) or ends on a continuum, and how the different modality types relate to each other diachronically. Most scholars assume a unidirectional pathway from participant-internal to participant-external to epistemic modality, but as pointed out by van der Auwera, Kehayov, and Vittrant (2009), there are also attested examples of the reverse development, i.e., from participant-external to participant-internal modality.

The chapter continues with a discussion of mood. Because K defines this in formal terms, the exposition is shorter and less complicated. The most important notions for the Finnic languages under investigation are Indicative, Imperative, Conditional, and (marginally) Potential.[1] The Imperative paradigm in many Finnic varieties also includes dedicated first-person plural ('hortative') and third-person ('jussive') forms. The category traditionally called 'Conditional' in Finnic linguistics has a range of functions comparable to the Subjunctive moods in the Romance languages. The rarer and more idiosyncratic Potential mood is only productive in one of the four languages investigated, Central Lude.

Chapter 4, entitled "Mood and modality meets language death", brings together the topics of the two preceding chapters and motivates the choice of the object of investigation. According to K, the functional domain of mood and modality in Finnic is a particularly good starting point for the study of LD because it is expressed by a wide range of different formal means: verbal morphology, complement-taking predicates, particles, adverbs, etc. Thus, even if the susceptibility to loss or change is not primarily functionally determined, taking mood and modality as the point of departure may lead to insights about the differences between structures with a more or less comparable meaning. However, as K makes clear (pp. 59–61), his working hypothesis is that the observed differences are best explained in functional terms.

Chapter 5 goes on to present "The languages studied", their genetic affiliation, sociolinguistic circumstances, and patterns of multilingualism and contact with other languages. As mentioned in Section 1, the four languages – Votic, Ingrian, Central Lude, and Eastern Seto – all belong to the Finnic branch of the Uralic language family and are (or were) spoken in northwestern Russia. Specifically, Votic and Ingrian are native to the historic Ingria (Ingermanland) region south of the Gulf of Finland, now part of Leningrad Oblast. Central Lude is spoken in southern Karelia between the lakes Ladoga and Onega, and Eastern Seto in Pskov Oblast near the border with Estonia. The four varieties are all either moribund or on the verge of extinction. According to K's estimates, in 2014 there were only 4 remaining native speakers of Votic and no more than 200 of Eastern Seto (p. 75),

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[1] I follow the useful convention of capitalizing language-(family-)specific categories in order to distinguish them from comparative concepts. Thus, 'conditional' refers to the familiar semantic concept, while 'Conditional' refers to a specific category in the Finnic languages.

making the latter the most widely spoken of the four languages. For many of the remaining speakers the dominant language, Russian, has become the default language of choice even with members of their own community, leading to a gradual loss of fluency and strong Russian influence on the native language. K provides a good illustration of this in the glossed text in Appendix II, a transcribed interview with a "rusty" speaker of Central Lude. The speaker borrows not only individual lexical items from Russian, but whole phrases.[2] To illustrate, I reproduce a short fragment in (1). The underlined material is transferred from Russian, including the inflectional morphology.[3]

(1) Central Lude

> *Minä ol'in*   <u>*utšenikom*</u>   <u>*mehanitšeskoi*</u>   <u>*mast'erskoi*</u> (.) <u>*utšenikom*</u>
> I.NOM be:PST:1SG apprentice:INS mechanical:GEN workshop:GEN apprentice:INS
> <u>*sl'esarja*</u>   *ezmäe* (.)   *sīt*   *sl'esariⁿ*   *ruodoin*   *d'o*   <u>*pered*</u>
> fitter:GEN at.first   then fitter:ADE work:PST:1SG already before
> <u>*okontšanie*</u>   <u>*voini*</u>
> end.GEN   war.GEN

> 'I was <u>an apprentice at the machine workshop</u>, <u>a fitter's apprentice</u> at first. Then I worked as a fitter, already <u>before the end of the war</u>.' (p. 343)

The remainder of the chapter gives a survey of the (largely unsuccessful) attempts at language planning and revitalization in the communities and the various extralinguistic factors – political, economic, demographic, and cultural – that have contributed to their gradual obsolescence.

"Methods of inquiry", Chapter 6, describes the fieldwork and elicitation techniques that were used to collect examples like (1) above. The fieldwork on the four languages was carried out by K and a group of colleagues from the University of Tartu in the period 2007–2013. In total, more than 100 hours of material were recorded, of which about 46 hours are included in this investigation. A combination of three elicitation methods was used: translation questionnaires from Russian to Finnic which were designed to elicit various modal expressions; free narratives and conversations; and a semi-controlled elicitation task where the consultant had to retell a story in his or her own words. The last of these, however, turned out to be less well suited and often had to be done on a sentence-by-sentence basis instead. The material was then transcribed and organized into two separate corpora, one containing the data from the questionnaire task, the other the "natural or

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[2]On the problem of distinguishing between heavy borrowing and codeswitching, see K's own remarks (p. 216) and the discussion by Matras (2009, 110–114).

[3]The interlinear glosses follow the Leipzig Glossing Rules. The following non-standard glosses are used: ABE = abessive; CNG = connegative; EMPH = emphatic; INE = inessive; INF1 = first infinitive; INF3 = third infinitive; PART = partitive. Unless otherwise indicated I reproduce K's glosses and translations. In the Finnic examples, <i̠> and <e̠> are used for the high central and high-mid central/back unrounded vowels, respectively, and <л> for the non-palatalized alveolar lateral /l/, as in K's book.

quasi-natural" speech data (p. 103). The expressions of modal meanings in the two corpora were analyzed and compared to the "traditional forms" of the four languages, as found in existing studies, grammars (if available), dictionaries, and text collections. The syntax of the minor Finnic languages is, according to Laakso (2001, 179), "particularly badly in need of (more modern) research", but one gets the impression that K has tracked down information wherever it could be found (see, e.g., the extensive overview of the literature consulted on pp. 107–108). The chapter ends with a discussion of the generation of hypotheses in the form of implicational hierarchies.

Chapter 7 is entitled "Intensity of the language contact and the degree of contraction outside MM-domain" (MM = mood and modality). As the title indicates, this provides an outline of contact-related phenomena observed in the four languages which do not directly relate to mood and modality. Section 7.1 focusses on formal and structural changes, including the levelling of stem alternations and irregular inflectional forms, the borrowing of Russian derivational morphology, and a tendency towards right-branching NPs as in Russian ('forecast of weather') rather than the left-branching structures ('weather forecast') typical of other Finnic languages. Another, quite striking, observation concerns the apparent inconsistency in the choice of object case shown by some speakers of Ingrian and Central Lude. The characteristic differential object marking (DOM) of Finnic, where highly affected objects are in the Genitive case and less affected ones in the Partitive, is abandoned by some speakers, who apparently use the two object cases interchangeably. According to K, this cannot simply be explained as pattern replication from Russian – the Russian DOM rules are not followed either – but is more likely due to language attrition.

Section 7.2, the second part of the chapter, addresses changes to the verb system outside the domain of mood and modality. These concern valency, tense, subject-verb agreement, and polarity. Regarding valency, K points to Russian influence in the formation of anticausatives, but this is already found in the traditional forms of the four languages and is thus not a result of the language-death situation. The tense system, on the other hand, appears to be much more affected. K first introduces the common Finnic tense system as it is found in the traditional forms of the four languages and then documents the changes observed in his corpus. The traditional system is similar to the one found in many continental Germanic languages, with two 'simple' or synthetic tense forms – traditionally termed Present and Imperfect – and two 'compound' or periphrastic tense forms, Perfect and Pluperfect. The last two consist of a finite form of the auxiliary 'be' plus a past participle. Among the changes observed in the corpus is the use of the Imperfect in contexts where the traditional varieties would use one of the periphrastic tense forms, especially the Perfect. This is interpreted as a case of 'negative borrowing' from Russian, i.e., the preference of a native structure which has a closer parallel in the dominant language: Russian has synthetic past-tense forms

similar to the Finnic Imperfect, but no periphrastic tense forms akin to the Finnic Perfect and Pluperfect.

Among the changes related to person/number agreement and polarity is the loss of inflection on the negative verb. Rather than invariable negative particles like Russian *ne* and German *nicht*, most Finnic languages have "asymmetric" negation with dedicated verb forms with differ from the ones used in affirmative clauses. This system is found in Votic, Ingrian, and Central Lude, which all traditionally express negation with a negative auxiliary, which is inflected for person and number, and a nonfinite ('Connegative') form of the negated verb, as in (2):

(2)   Votic (Krakol′je/Jõgõperä dialect)
　　a.   *nūska-n*
　　　　smell-1SG
　　　　'I smell.'

　　b.   *e-n　　　nūska*
　　　　NEG-1SG   smell.CNG
　　　　'I do not smell.'

　　　(Markus and Rožanskij 2017, 518)

In K's material from the three languages, however, this system is unstable. On the one hand, some speakers of Ingrian and Central Lude extend the 3SG form of the negative auxiliary to plural and first- and second-person subjects; in Votic the traditional 3SG form *eb* is itself being replaced by the form *ei*, apparently a loan from Ingrian or Finnish. On the other hand, the Connegative forms may be substituted by the person-marked (finite) forms traditionally reserved for affirmative clauses. This drift towards "symmetric" negation may be explained both as a case of increased constructional transparency and as replication of the Russian negative construction (p. 166). In fact, the Russian negation *ne* is sometimes used instead of the inherited Finnic forms, as in (3):

(3)   Ingrian (Soikino dialect)
　　Mⁱä　　ne=beä-n　　　　noiž　　tūd　　　tegömä
　　I.NOM   NEG=must-PRS.1SG   start.INF   work:PART   do:INF
　　'I don't have to start working' (p. 166)

Chapter 8, by far the longest in the book, presents the findings on "MM in the receding varieties". The first half of the chapter deals with modality, the second with mood, as defined in Chapter 3. The developments in the domain of modality are divided into two categories: restructuring of inherited matter and transfer of linguistic matter from Russian. The first of these, in turn, is subdivided into purely semantic changes and "morphosyntactic changes with semantic correlates". The sections on mood are structured differently, dealing first with both formal and functional changes to the

grammatical moods Imperative, Conditional, and (marginally) Potential, and then discussing changes to two sentence types, namely interrogative clauses and reported speech. The last few pages of the chapter sum up the findings in three handy tables, where the most important observations are stated in a shorthand form and given an abbreviation ("MM-1", "MM-2", and so forth).

As for the purely semantic changes, the one that receives the most attention is the "multifunctionalization" of individual items to express a wider range of modal values (pp. 178–195). This development is observed both within the domain of modal possibility (MM-1, MM-2) and in what K terms "possibility-necessity blends" (MM-5, MM-6). In the former case, older distinctions between different subtypes of possibility meaning are lost in the contemporary languages, such as the distinction between participant-internal possibility (ability) and permission, and between different types of ability (inherent *vs.* acquired). In the latter case, the distinction between possibility and necessity is neutralized. One important observation – spelt out explicitly in the discussion of ability meanings (p. 183), but apparently also applicable to the other developments – is that the semantic changes cannot be explained merely as direct replication of Russian patterns: as K notes, the lost distinctions are actually also found in Russian, such as the use of separate verbs to express acquired ('know how to') and inherent ability ('be able to'). Compare the use of *umeju* (INF *umet'*) for acquired ability in (4a) with *mogu* (INF *moč'*) for inherent ability in (4b):

(4)　Russian

　　a.　Я　　　умею　　　плавать.
　　　　ja　　*ume-ju*　　*plava-t'.*
　　　　I.NOM　know-1SG　swim-INF
　　　　'I can/know how to swim.'

　　b.　Сегодня я　　　не　могу　　　плавать: у　меня　рука
　　　　segodnja ja　　*ne*　*mog-u*　　*plava-t':*　*u*　*menja*　*ruka*
　　　　today　　I.NOM　NEG　be_able-1SG　swim-INF　at　1SG.GEN　arm.NOM
　　　　болит.
　　　　bol-it.
　　　　hurt-3SG
　　　　'I can't swim today: I have a sore arm'.

　　　　(Wade 2011, 343)

Accordingly, when some Central Lude speakers have lost the older distinction between *maлttada* (acquired ability, 'know how to') and *voida* (inherent ability, 'be able to'), as evidenced by the use of *voida* in both instances in (5), this must be due to language attrition rather than pattern replication from Russian:

(5) Central Lude

Minä **voin** külbiä, no nügö en **voi** külbiä,
I.NOM be_able:PRS.1SG swim.INF but now NEG.1SG be_able.CNG swim.INF
mille[i] jaŋg on kibiä
I.ALL leg.NOM be.PRS.3SG hurting
'I can [= know how to] swim, but now I'm not able to swim, because my
leg hurts.' (p. 184)

As for the morphosyntactic changes, three tendencies are observed: the
'particlization' of modal verbs, especially those expressing epistemic possi-
bility (MM-7); the use of modal verbs without an infinitival complement
(MM-8); and the use of 2SG inflections in 1SG and 3SG contexts. The first two
phenomena may be explained partly as pattern replication from Russian (but
see pp. 213–214 for an exception), whereas the third is very marginal in the
data and would seem to require further investigation.

Transfer of linguistic matter from Russian occurs frequently in all four
languages. K investigates the transfer of modal words (verbs, adverbs, and
particles), complement-taking predicates (CTPs), and subordinators. In the
case of modal words, he finds that expressions of epistemic modality (e.g.,
naverno 'probably, certainly') are transferred more often than non-epistemic
ones (MM-9) and that necessity modals (e.g., *dolžen* 'obliged') are transferred
more often than possibility modals (MM-10). The second fact is in line with
what is known from other cases of language contact (Matras 2007; Hansen
and Ansaldo 2016). In the case of CTPs and subordinators, the most fre-
quently transferred items are CTPs expressing mental perception and pro-
positional attitude, especially *dumat'* 'think' (MM-11), the complementizers
čto 'that' and *čtoby* '(so) that, in order to' (MM-12), and final and causal
adverbializers, e.g., *potomu čto* and *tak kak*, both 'because' (MM-13).

In the sections on mood, the fates of the Imperative and Conditional
moods, the formation of interrogative clauses, and the expression of reported
speech are investigated. In the case of the Imperative, K finds that dedicated
negative imperative (prohibitive) marking is lost before positive imperative
marking (MM-15), first-person (hortative) and third-person (jussive)
before second-person marking (MM-16), and plural before singular marking
(MM-17). Among the changes observed in the Conditional mood are the use
of simple instead of periphrastic past-tense forms (MM-18) and the transfer
of the Russian Subjunctive clitic =*by* in Conditional environments (MM-22),
usually leading to redundant marking (contradicting earlier claims in the
literature, see p. 273). Transfer of Russian matter is also found in interroga-
tive clauses, where the polar question clitic =*li* is occasionally borrowed
(MM-23). As for the expression of direct and indirect speech, K notes
a "hybrid" structure with a complementizer, suggesting indirect speech,
followed by a direct quotation (MM-4).

Chapter 9 is entitled "Towards a uniform account of the phenomena observed in the domain of MM". As the title suggests, K attempts to isolate a single factor which can account for as many of the observed developments as possible. He proposes that *conceptual complexity*, understood as "the degree of semantic specification and relative elaboration of meaning structure" (p. 297), may explain the majority of the developments. Specifically, he argues that more conceptually complex structures are lost (replaced) before less complex ones. Some of the observed changes are argued to be straightforward cases of reduction of conceptual complexity, such as the loss of semantic distinctions in the domain of modal possibility (MM-1, MM-2), the loss of the negative Imperative forms before the positive ones (MM-15), and the loss of plural marking before singular marking (MM-17). Other cases are explained with reference to the layered model of semantic structure as found in Functional (Discourse) Grammar (e.g., Hengeveld and Mackenzie 2008). According to K, expressions which have a higher layer in their immediate scope are more susceptible to loss because they are more conceptually complex. This is why epistemic modal expressions are more susceptible to loss than non-epistemic ones (MM-8, MM-9): epistemic expressions have a proposition in their immediate scope, whereas deontic and dynamic modals have a state of affairs or a configurational property, which are "lower" layers in the model. Similarly, CTPs expressing mental states and propositional attitudes have propositions in their immediate scope and are thus more susceptible to loss than manipulative and immediate perception predicates, which have states of affairs in their immediate scope (MM-11).

A separate section is dedicated to those observed changes which cannot be explained with reference to semantic scope and conceptual complexity. These are the "hybrid" structures between direct and indirect speech (MM-4) and the relative affectedness of the Conditional in different environments (MM-19, MM-20). In addition, two potential counterexamples are discussed: the transfer of the irrealis complementizer *čtoby* before the polar complementizer *=li* (MM-12) and the transfer of causal and final adverbializers before conditional and temporal ones (MM-13). Finally, Chapter 10 offers "Conclusions" and suggestions for future work.

3. Evaluation

Before moving on to the individual issues I wish to discuss, I will offer a few more general remarks. On the whole these will be very positive. This is a rich and thought-provoking study, which should be of interest not just to Uralicists and scholars working on mood and modality, but to anyone interested in language contact and the interplay between internal and external factors in language change. The title of the monograph is in fact rather modest: although the longest chapter does indeed concern mood and

modality, the book also contains much valuable information on the study of receding languages and on the Finnic languages of Russia, such as the overview of their external history and contemporary position in Chapter 5, and the survey of changes in other domains than mood and modality in Chapter 7.

If I were to point to just one thing which I missed in the book, it would be a more detailed treatment of the mood and modality systems of the traditional (i.e., "pre-LD") forms of the four languages. The most obvious reason is that it is necessary to have a good grasp of the starting point in order to fully appreciate K's observations and arguments. In addition, the mood and modality systems of the traditional languages have a number of interesting features of their own, such as the more widespread occurrence of non-nominative subjects than in the western Finnic languages (p. 173) and the somewhat unexpected polysemy patterns of the Ingrian possibility modals *jaksā* and *mahtā* (p. 178). In lieu of such sketches of the four languages, K introduces the "congenital" Finnic mood and modality system as a whole and illustrates it with examples from contemporary (standard) Finnish. I think this is a pity for two reasons. First, it may give the impression that the modern Finnish language has preserved the Proto-Finnic state of affairs more or less intact, but Finnish has of course experienced grammatical changes of its own (see, e.g., Forsberg 2003 on the Potential mood). Second, while information on mood and modality in Finnish is available elsewhere even to non-Finnic readers (e.g., Kangasniemi 1992; Tommola 2010), there is little or no literature on mood and modality in the four minor languages studied in the book.[4] Although I agree with K's statement (p. 170) that a full account of the four traditional systems would have taken up too much space, an outline might have been given in schematized form (similar to the table on p. 182) or as an online appendix. Fortunately, it seems that dictionaries and text collections are available for all four traditional languages (pp. 107–108), so this descriptive work could possibly be carried out in the future. Until then, the best resource I could find was a handbook chapter co-authored by K himself (Kehayov and Torn-Leesik 2009), which, along with the more general overview article by Laakso (2001), provided useful background information for my reading of Chapters 7 and 8.

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[4]The main exception appears to be Votic, where there are a few articles on the mood system (e.g., Agranat 2004; Markus 2004), as well as a number of grammars (Ahlqvist 1856; Ariste 1968; Markus and Rožanskij 2017). In the case of Central Lude and Eastern Seto, there seems to be no literature available on any aspect of grammar unless one reads Finnish or Estonian. To get an impression of the available resources I checked the bibliographies in Glottolog (Hammarström, Forkel, and Haspelmath 2019). The few resources listed for Lude [ludi1246] are all in Finnish, whereas the database contains no references to Seto [seto1244] resources in any language. It should of course be kept in mind that these languages are traditionally considered dialects (of Karelian or Veps and Estonian, respectively), so they may be covered in dialectological work on these languages; see, e.g., Lindström and Uiboaed (2017) on 'need' expressions in Estonian dialects, where Seto is also included.

There are some typos and stylistic infelicities throughout the book, but nothing to impede the understanding of the content.[5] More distracting are the occasional inaccuracies in the English example sentences which are used to explain various concepts and analytical choices. For instance, K argues that complements of manipulative and desiderative predicates have sub-propositional status because of "the impossibility to insert in them propositional modifiers" (pp. 312–313), such as the epistemic adverb *perhaps*. He illustrates this with the starred example in (6):

(6)   *I asked/wanted her to *perhaps/*certainly come here.* (p. 313)

However, the use of *perhaps* in this type of complement is widespread in native varieties of English, and examples like (7) with *ask* and (8) with *want* can easily be found on the internet or in a large text corpus:

(7)   UK English
      *Do you reckon its worth asking them to **perhaps** reduce the cost for this, or ask them to **perhaps** include the drinks in the catering price?*

      (Anon. on www.hitched.co.uk, 2011)

(8)   American English (speaker from Arizona)
      *I want you to take on college, and I want you to **perhaps** go into debt, because college is expensive*

      (Delacruz 2016)

In (7) *perhaps* is probably best analyzed as a mitigating device ('downtoner') rather than an epistemic marker, an analysis which K himself later discusses for the Finnic Conditional (pp. 315–316). In (8) this analysis seems less likely to me. In any event, the distribution of *perhaps* in present-day English does not seem to provide an accurate diagnostic for the status of manipulative and desiderative predicates.[6]

I will return to the use of English examples in the argumentation in Section 4.2 below. The discussion in Section 4.1 will center on the analysis of modality.

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[5]For good order's sake I give a few examples: for "lifes" (p. 8) read "lives"; for "plays always" (p. 25) read "always plays"; for "in separate" (p. 49) read "separately"; for "manifestation … nation … certain variety" (p. 79) read "a manifestation … a nation … a certain variety"; for "C2 and C2" (p. 107) read "C1 and C2"; for "army:DAT" (glossing Russian армию, p. 131) read "army:ACC"; for "case forms" (p. 137) read "tense forms"; for "is able can" (p. 196) read "is able to"; for "near" (p. 197) read "nearby"; for "few words" (p. 242) read "a few words". The unidiomatic "what concerns" is used throughout for "as for" or "as regards".
[6]The same goes for the reverse argument, i.e., that a clause has propositional status because one can add *perhaps* to it. K uses the following example to show that conditional clauses are propositional: *If you had perhaps asked me, I would probably have told you* (p. 318). This seems to me like an example of the mitigating use of *perhaps*, as in (7), rather than an epistemic use.

4. Discussion

4.1. The classification of modality

The analysis of modality has been the object of much discussion in the literature – see, e.g., Nuyts (2016) for a recent survey – and I will only discuss a few points here which I think are immediately relevant to K's analysis. These concern the relation between circumstantial and deontic modality and the "missing link" between circumstantial and epistemic meaning.

As mentioned in Section 2 above, K's analysis of modality builds on the familiar semantic map approach (van der Auwera and Plungian 1998; van der Auwera, Kehayov, and Vittrant 2009). This framework distinguishes four basic types of modality, which K terms 'participant-internal' (or 'dynamic'), 'circumstantial', 'deontic', and 'epistemic'.[7] Circumstantial and deontic modality together form the "complex" category participant-external modality, which "ascribes the source of the modal qualification to conditions external to the participant" (p. 29). It is unclear to me exactly what use this complex notion serves. It is certainly true that in an example like (9a) the modal source is internal, whereas in both (9b) and (9c) it is external to the participant – but one could also argue that (9a) and (9b) form a complex category because the source is a fact in the physical world, while in (9c) the source is located in the social world (in this case, the laws or social norms of Bavaria).[8]

(9) a. *He can lift a Trabant with one hand* (p. 21)   [participant-internal]
   b. *To get into the garden you can pass through*
      the kitchen (p. 22)   [circumstantial]
   c. *You can drink beer in the park in Bavaria* (p. 23)   [deontic]

The complex notion 'participant-external' in fact causes some confusion later in the book because it is not always applied consistently. (10) is the pathway from dynamic (i.e., participant-internal) to epistemic modality as given by K. Here it would seem that 'participant-external' is synonymous with

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[7]I agree with K that 'circumstantial' is preferable to the somewhat unwieldy term 'participant-external non-deontic' used by van der Auwera and Plungian (1998). I will also use 'participant-internal' in the following rather than 'dynamic'. The latter term is often used in a broader sense in the literature, as K acknowledges (p. 22).

[8]Or, as de Schepper and Zwarts (2009, 255) put it, (9c) has the feature [+deontic], whereas (9a) and (9b) do not. A more fundamental distinction between deontic modality and the other types is also assumed in Bech's (1951) classic paper on German (although with different terminology), and more recently in Narrog's (2012) cross-linguistic work. The reason why van der Auwera, Kehayov, and Vittrant (2009) group deontic and circumstantial modality together is that they "do not know of any marker that has a participant-external non-deontic [i.e., circumstantial] meaning without also having the participant-external deontic meaning" (van der Auwera, Kehayov, and Vittrant 2009, 276 n). The modal verbs of modern standard Danish would seem to provide an example of such a system: the modal verb *kunne* generally expresses circumstantial possibility but not permission, and *måtte* expresses circumstantial necessity but not obligation. Deontic *måtte* exists, but expresses permission rather than obligation, leading some linguists to classify it as a separate lexeme from necessity *måtte*. See Brandt (1999, 49–54) for details.

'circumstantial' rather than its hypernym and that deontic modality is a possible – but optional – step on the way to epistemic modality:

(10) dynamic → participant-external (→ deontic) → epistemic (p. 38)

Later, however, it seems that 'deontic' is either considered a necessary step towards epistemic modality, or that the term 'deontic' is now used synonymously with 'participant-external', although at this point K puts the terms between quotation marks, see (11):

(11) 'dynamic' > 'deontic' > 'epistemic' (p. 179)

In any case, it is not quite clear to this reader how K views the relation between the different modal subtypes. A further ambiguity appears in the section on "possibility–necessity blends" (pp. 189–195), where the participant-external category seems to have been abandoned: instead of presenting the circumstantial and deontic subtypes together in the tables, K collapses the figures for the categories 'dynamic' and 'circumstantial'.

Also relating to the development of epistemic modality is a meaning category which is missing from K's semantic map and which has gone by many different names in the literature. Gamon (1993) calls it "root", Goossens (2000) "general objective", and Depraetere and Reed (2011) "general situation" modality.[9] I will follow Nuyts and Byloo (2015) and Nuyts (2016) and use the term 'situational' for such instances. Two examples from the relevant literature are given here, (12) from modern and (13) from earlier English:

(12)   Australian English
       When the soil dries out, strain is put on the house structure and cracks
       can *appear overnight.*
       (Depraetere and Reed 2011, 6)

(13)   Middle English (Chaucer, *Canterbury Tales, c.*1400)
       wherto and why / biryeth a man his goodes by his grete Auarice / and
       knoweth wel / þ^t nedes ***moste*** *he dye*
       'For what purpose and why does a man bury his goods because of his great avarice, knowing well that he must necessarily die?' (tr. Goossens 2000, 161)

       (Hengwrt MS, f. 230r; cited from Stubbs et al. 2013)

Unlike a circumstantial modal expression like (9b) above, the situational type does not express what is possible or necessary for a participant to do, but rather

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[9]Of these three studies, Goossens (2000) focusses on necessity and Depraetere and Reed (2011) on possibility meanings in English. Gamon (1993) discusses both possibility (*mögen*) and necessity (*müssen*) in the history of German. The authors do not define and delimit the category in exactly the same way, but this need not concern us here – the important thing is that they have all recognized it as distinct from circumstantial and epistemic modality.

that the situation as a whole is possible (12) or inevitable (13). Unlike epistemic modality, on the other hand, situational uses do not involve an estimation of the likelihood that the proposition is true, but present the situation as objectively possible or inevitable. K uses the term "objective" epistemic modality (e.g., pp. 42, 181), but this seems like a misnomer to me, for elsewhere epistemic modality is implied to always have propositional scope (pp. 33, 303).

Recognizing situational modality as a distinct meaning category would, I believe, shed more light on at least one of the developments discussed in the book. K notes that the participant-internal modal *joudma* 'manage, be physically able' in Eastern Seto has been extended both to circumstantial uses and "to what seems to be an objective epistemic context" (p. 181) in (14). The example in (14) is described as sounding very odd to native speakers of western (Estonian) Seto:

(14) Eastern Seto
   Temä   joud   rākida   kui   nimä   um   temä
   s/he.NOM   be_able.PRS.3SG speak:INF like 3PL.NOM be.PRS.3PL s/he.GEN
   latsę'
   children

   'She can speak to them as if they were her own children.' (p. 181)

However, in light of the literature cited above this meaning extension is quite expected and seems to be exactly parallel to the developments (participant-inherent → circumstantial → situational) observed in the history of German *mögen* (Gamon 1993) and English *can* (Goossens 1992). The distinction between situational and epistemic meaning also appears to be relevant for the description of Finnish, where Kangasniemi (1992) distinguishes between modals expressing "possibility" (*voida, saattaa*) and "probability" (*taitaa, mahtaa*). Both are subsumed under epistemic modality by Kangasniemi, but the examples given to illustrate the former category, such as (15) with *saattaa*, are probably better analyzed as expressing situational meaning:

(15) Finnish
   *Suomalais-i-ssa   jun-i-ssa   matkustaja-t   **saatta-vat** istu-a*
   Finnish-PL-INE train-PL-INE passenger-PL.NOM   may-3PL   sit-INF1
   tuntikausia vastatusten lausu-ma-tta halaistua=kaan   sana-a
   for_hours   opposite   say-INF3-ABE single.PART=EMPH word-PART
   toisilleen
   to_each_other

   'In Finnish trains passengers may sit [i.e., 'sometimes sit'] for hours face to face without saying a single word to each other.' (Kangasniemi 1992, 156–157)

To conclude this section, I present a slightly modified version of K's semantic map in Table 2, which takes into account the two points I have raised here. The

Table 2. A modified semantic map of modality.

	Permission		
Participant-internal possibility	Circumstantial possibility	Situational possibility	Epistemic possibility
Participant-internal necessity	Circumstantial necessity	Situational necessity	Epistemic necessity
	Obligation		

type 'situational' has been added between circumstantial and epistemic modality to indicate the contiguity between them. The deontic categories 'permission' and 'obligation' have been separated from circumstantial modality to stress the point that deontic and circumstantial should not be considered subtypes of a more general ("participant-external") category.

4.2. Language death and language change

My second point concerns the identification of phenomena that are peculiar to language death *vs.* phenomena that are also found in contact-induced or language-internal change more generally. The problem of distinguishing between such phenomena is discussed in Chapters 2 and 4. As K notes, scholars disagree about whether there are changes occurring in gradual LD which are unique to it, or whether "the changes occurring in normal language development and LD are similar, but the latter are conducted within a compressed timespan" (p. 11). K professes to remain agnostic about this question, although he still assumes that LD-induced change is "not (entirely) identical" (p. 1) to change under "normal" circumstances. The analyses throughout the book are generally very careful, and K usually considers whether the observed (potentially LD-induced) phenomena might be better explained as interference from Russian or as regular language change. There are a few cases, however, where these alternative factors could have been accorded more weight. One such change, the development of situational meaning in examples like (14), was already discussed above.

In a number of other cases, it seems to me that K's data provide intriguing evidence for differences between contact-induced and LD-related changes. In the section on transfer of Russian subordinators, K notes that his Eastern Seto material differs from the other three languages in several respects: Eastern Seto speakers do not borrow Russian complementizers, while Russian *čto* 'that' is frequent even in pre-LD Ingrian, Votic, and Central Lude (pp. 232–233); speakers of these three languages also use a number of Russian adverbial subordinators, whereas this is only attested in the speech of a single Eastern Seto consultant (pp. 236–238). A similar pattern is observed

in the case of the Russian Subjunctive clitic =*by* (p. 271). To me this would seem to suggest that the borrowing of these functional elements is a result of the specific contact situations between Russian and Votic, Ingrian, and Central Lude, but not necessarily induced by language death. Or, alternatively, that the Eastern Seto situation is not such a clear instance of language death after all. At any rate, the striking differences between Eastern Seto and the other three languages certainly deserve to be investigated in more detail.

I am not entirely convinced by the discussion of the changes to the negative auxiliary in Votic, Ingrian, and Central Lude. K notes that his material from these three languages shows levelling of the inflectional paradigm of the negative auxiliary. Specifically, in Ingrian and Central Lude, the 3SG form *ei* is extended to 1SG and 2SG contexts, whereas in Votic, the original 3SG form *eb* is being replaced by *ei*, which "seems to be borrowed from Ingrian or Finnish" (p. 148). K interprets this as an indication that third-person forms are more susceptible to change in LD than first- and second-person forms. Here two rather different phenomena appear to me to be conflated. The extension of the 3SG form to other contexts in Ingrian and Central Lude is obviously a case of levelling of paradigmatic oppositions, which according to K is not attested in the pre-LD forms of these two languages (p. 147). The Votic development, on the other hand, appears to be a case of replacement of a single form in the paradigm by a borrowed one, which in addition seems to be limited to modal contexts (p. 148). Furthermore, if the innovative 3SG form *ei* in Votic is indeed borrowed from Ingrian, this does not provide evidence that third-person forms are more susceptible to change or borrowing than first- or second-person forms, for the 1SG and 2SG forms were already identical in traditional Votic and Ingrian (see table 12 on p. 147). In other words, the 3SG form would be the only of the three forms where borrowing is detectable. K's material thus seems to me to suggest that two distinct developments have occurred in Ingrian and Central Lude on the one hand and Votic on the other.

Finally, I return to the issue of English example sentences in the argumentation. As I mentioned in Section 2, one of K's findings in the data is the existence of "hybrid" structures combining features of direct and indirect speech (MM-4). One such example is seen in (16), where the speaker uses the complementizer *što* (← Russian *čto*), "expected to introduce indirect speech" (p. 290), followed by a direct quotation:

(16) Central Lude

Hän   sanoi   što   mina   tädä   mužikkoa d'o
s/he.NOM say:PST.3SG COMP I.NOM this:PART man:PART already
nägin
see:PST.1SG

'He$_i$ said that "I$_i$ already saw this man".' (p. 291)

K finds such examples in the material from Ingrian, Central Lude, and Eastern Seto, and writes that this hybrid structure does not occur in the traditional forms of the languages. In order to illustrate the ungrammaticality of the structure he gives a number of starred English examples:

(17)   a.   *He_j said that I_j saw this man. (p. 290)
       b.   *Aunt told $them_j$ that you_j should stay a little longer. (p. 291)

The sentences in (17) would certainly not be considered standard written English, but as in the case of *perhaps* discussed in Section 3, examples like these are not at all foreign to English as it is actually spoken. I give two examples of "hybrid" reported speech in (18)–(19). (18) is from a radio broadcast, (19) from an interview transcript in the spoken-language component of the *Corpus of Contemporary American English* (COCA; Davies 2008). The complementizer is in boldface in both examples, the direct speech in roman type.

(18)   American English (speaker from California)

       But this new government study, the program, found that one in three people who lost their grants said **that** hey, I did meet those teaching requirements, I was teaching in a low-income school, or I was on the way to meeting that four-year requirement, *but their grants were changed into loans anyway.*

       (Arnold 2018)

(19)   American English (speaker from New York)

       I went in, I recall, to Craig's office and said **that** "I'm going back, and I think I can at least find a few of the people that I used to work with"

       (COCA, 1999 [SPOK] ABC_Special)

Even in the written component of COCA one can easily find examples where *that* introduces a direct quotation. (20) is from an academic paper:

(20)   *Franklin C. Miller, Senior Director for Iraq on the NSC staff, told me* **that** "I had no visibility, and I have no idea to this moment what Feith and company were up to, I presumed they were meeting internally . . . "

       (COCA, 2013 [ACAD] PolSciQuarterly)

This "hybrid" structure usually goes unmentioned in grammars of contemporary English and to the best of my knowledge also in grammars of other well-described languages.[10] A similar phenomenon has, however, been noted

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[10]Checking the three largest reference grammars of modern English, I found no mention of the pattern in the relevant sections in Quirk et al. (1985, 1020–1033) and Biber et al. (1999, 1118–1121), whereas Huddleston and Pullum (2002, 1029) mention it in passing as a "much less usual type of blend" between direct and indirect speech. They offer no statistical evidence for this assertion, but my suspicion is that it is precisely the kind of phenomenon which is overlooked because of the book's (acknowledged) bias towards the standard written language (Huddleston and Pullum 2002, 11–13). COCA in fact returns more

both in contemporary spoken Danish (Haberland 1986, 242–243) and Russian (Podlesskaja 2018, 54–55) and, as Haberland points out, is also attested in Ancient Greek and Old Icelandic sources, as in (21):

(21)   Old Icelandic (*Gylfaginning, c.*1300)
    Hann svar-ar   at   ec   skal   riþ-a
    he   reply-PRS.3SG COMP   I.NOM must.PRS.SG ride-INF
    til   Hel-iar   at   leit-a   Baldr-s
    to   hell-GEN   COMP search-INF   Baldr-GEN
    'He$_i$ replies that "I$_i$ have to ride to Hell to look for Baldr".'
    (Jónsson 1931, 66; my gloss and translation)

These facts suggest that the distinction between direct and indirect speech constructions is less clear cut than the grammatical tradition would have and that the "hybrid" structure observed in Ingrian, Central Lude, and Eastern Seto is more likely a feature of oral narration rather than a LD-induced innovation. That the combination of a complementizer and a direct quotation has not been reported in the literature on the traditional varieties of the three languages need not surprise us – as already noted, it is usually not reported in English grammars either.

4.3. Frequency and functional explanations

As I mentioned in Section 2, K argues that most of the observed phenomena in the four languages can be explained by the relative conceptual complexity of linguistic structures: more conceptually complex structures are more prone to loss or transfer from the dominant language, i.e., Russian, than less conceptually complex structures. In K's own words, his working hypothesis is "that the relative susceptibility of linguistic elements to loss, change and innovation is meaning-driven and thus organized along functional notions rather than along structural patterns" (p. 53). This is certainly a valid hypothesis which ought to be considered, and I do not here intend to dismiss all such functional explanations out of hand. However, I do wish to raise a few points where I think an alternative perspective might be beneficial. I will tentatively suggest that some of the changes observed in K's material may be explained equally well or better with reference to usage frequency than to conceptual complexity. In other words, I will not argue against conceptual complexity *per se* as a possible explanation for some changes, only for considering usage frequency as a potentially relevant factor as well.

than 1,100 hits on the search string <said that ">, i.e., with the complementizer followed by a quotation mark, though of course not all of these hits are relevant. An in-depth investigation of this phenomenon obviously falls outside the scope of this review article, but would certainly be worth pursuing in the future.

K very briefly considers – and rejects – frequency-based explanations, arguing that such an approach easily becomes circular: changes in frequency are part of the observed LD phenomena, meaning that appealing to frequency would be explaining the explanandum by itself (p. 60). K is here clearly referring only to the observed frequencies of structures in the receding languages themselves (which we might term *corpus frequency*). I think this perspective on frequency is too limited. First, in a gradual language death scenario, there will always be at least two languages involved, so there is not only the corpus frequency in the receding language to consider, but also in the dominant language. Second, as K mentions on the following page, "the languages studied are seldom used in everyday communication" (p. 61), so from the point of view of the individual speaker the most frequently encountered and employed structures belong to the dominant language, not the receding one. (We might term this *phenomenological frequency*, i.e., frequency as experienced by the speaker.) Even structures which are ostensibly frequent in the receding languages – when used – may be very infrequent from the point of view of the individual language user if he or she never uses the language in everyday communication. This to me suggests that the frequencies of structures in the *dominant* language need to be considered along with the observed frequencies in the receding languages. In the remainder of this section, I will suggest that some of K's observations might be better accounted for by such an approach.

In the section on complement-taking predicates (CTPs), K observes that CTPs expressing mental perception (e.g., 'seem') and propositional attitude (e.g., 'think') are more prone to transfer than other types of CTPs (MM-11). He suggests that this is related to their wide (i.e., propositional) scope (pp. 226–228). As he also notes, however, most of the examples in the corpus are of a single token, the Russian borrowing *dumat'* 'think', which is actually attested already in at least three of the traditional varieties of the languages (p. 229). According to Ljaševskaja and Šarov (2011), *dumat'* is the eleventh most frequent verb in the Russian National Corpus (RNC), with a normalized frequency of 755.5 instances per million words.[11] This by no means proves that K's functional explanation cannot be part of the story, but I think it suggests that the observed patterns of transfer may at least in part be due to the very high frequency and entrenchment of the lexical item *dumat'*.

Along similar lines, in the section on complementizers it is observed that the "neutral" complementizer *čto* 'that' is more prone to transfer than the "irrealis" complementizer *čtoby* 'so, (in order) to', which again is more prone to transfer than the "polar" complementizer *=li* 'if' (MM-12). K (p. 235) suggests the borrowability hierarchy in (22):

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[11]In the spoken-language subcorpus the normalized frequency is even higher (n = 1771.4 pmw). This subcorpus is much smaller, however, and the frequency information is not organized according to parts of speech.

(22)　semantically neutral propositional complementizer(s) (i.e., *čto*)
　　> complementizer(s) introducing irreal states-of-affairs (i.e., *čtoby*)
　　　> complementizer(s) introducing polar propositions (i.e., *=li*)

The first observation (*čto* > *čtoby*) is in line with K's expectation that an element with propositional scope is more prone to transfer than an element with a state of affairs in its immediate scope. The second observation, however, seems to contradict K's hypothesis, as he acknowledges and discusses later (pp. 312–313): according to the conceptual complexity hypothesis, the propositional-scope complementizer *=li* should be more, not less, susceptible to borrowing than *čtoby*. K tentatively suggests that the observed pattern may be due to formal factors: "The resistance to transfer of the polar type [i.e., *=li*] may be explained by the fact that it is a clitic" (p. 235). I wish to submit the following competing hypothesis: *=li* is less prone to transfer than *čto* and *čtoby* because it is significantly less frequent. K's borrowability hierarchy in (22) in fact corresponds exactly to the relative frequency of the three complementizers in the RNC, given here in Table 3.

Table 3. Complementizer frequency in RNC (pmw)[12]

Complementizer	*n*
что (*čto*)	8354.0
чтобы (*čtoby*)	1479.7
=ли (*=li*)	106.9

　　Finally, I think one ought to consider the role that usage frequency might play in the loss of dedicated imperative forms in the four languages. K's findings result in the three hierarchies in (23): prohibitive, i.e., dedicated negative imperative forms, are lost before positive imperative forms; 1PL (hortative) and third-person (jussive) forms are lost before the second person; and the 2PL is lost before the 2SG:

(23)　a.　PROH (NEG.IMP) > IMP　　(MM-15)
　　　b.　1 > 3 > 2　　　　　　　　(MM-16)
　　　c.　2PL > 2SG　　　　　　　　(MM-17)

These hierarchies are, again, explained with reference to conceptual complexity. According to K, the prohibitive is more conceptually complex than the positive imperative, the 2PL is more complex than the singular, and so forth (see

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[12]Data from Ljaševskaja and Šarov (2011), specifically the "Frequency count of lemmas belonging to auxiliary parts of speech" («Частотный список лемм служебных частей речи»). Along with *čtoby*, the reduced form *čtob* (*čtob*) occurs as well (*n* = 168.0 pmw). The data in Table 3 are from the full corpus. The frequency of the three items relative to each other is the same in the spoken subcorpus (*čto* = 8983.2 pmw; *čtob(y)* = 1537.1 pmw; *=li* = 23.9 pmw).

pp. 298–299 for details). Even if this might be the case, I think a frequency approach could explain the patterns in (23) just as well and should at least be considered. While it is probably too late to investigate the usage frequencies of the forms in (23) in the traditional (i.e., pre-LD) varieties of the four languages, comparative evidence from related Finnic languages might be of use. Finnish, for instance, has dedicated 1PL, 2PL, and third-person imperative forms, as well as a separate negative imperative auxiliary (Tommola 2010, 514–515). However, Tommola (2010) mentions that both the 1PL and third-person forms are rare in the spoken language. I think a reasonable hypothesis about the observations in (23) is that the 2SG positive imperative survives longer than the other forms simply because of higher frequency in actual discourse. But this, as well as the other hypotheses presented here, will have to remain a topic for further investigation.

5. Conclusion

In this review article, I have summarized and evaluated *The Fate of Mood and Modality in Language Death* and made a few suggestions pertaining to the semantic map of modality, the identification of changes characteristic of language death, and the functional explanation of the observed patterns in terms of conceptual complexity. Specifically, I have argued for a slightly modified version of the semantic map (Section 4.1), that "hybrid" reported speech constructions may be a general feature of informal spoken discourse rather than a phenomenon induced by language death (Section 4.2), and that some of the changes K observes may be explained with reference to usage frequency rather than conceptual complexity (Section 4.3). In the case of the complementizers *čtoby* and *=li* in particular – which appear to contradict K's hypothesis – a frequency account seems superior and, I think, deserves to be considered seriously. However, even if I am not convinced by all of K's suggestions, it should be clear from this review article that I thoroughly enjoyed reading and engaging with his book. Indeed, it is only because K's framework and theoretical positions are so clearly articulated and the evidence so lucidly presented that this review article was a feasible and worthwhile endeavor to begin with. For these reasons, I wholeheartedly recommend *The Fate of Mood and Modality in Language Death* to anyone with an interest in modality and mood, areal linguistics, or language change in general.

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Notes on contributor

Sune Gregersen is a PhD student at the University of Amsterdam, working on modality in the older Germanic languages. His other interests include the early history of linguistic description, TMA across languages, and the diachrony of (non-canonical) argument marking.

ORCID

Sune Gregersen http://orcid.org/0000-0002-3387-4340

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