

Shana Poplack, Rena Torres Cacoullos, Nathalie Dion,
Rosane de Andrade Berlinck, Salvatore Digesto, Dora Lacasse and
Jonathan Steuck

8 Variation and grammaticalization in Romance: a cross-linguistic study of the subjunctive

Abstract: Building on studies seeking to position the Romance languages on the cline of grammaticalization, this study targets the evolution of subjunctive into subordination marker in speech corpora of French, Italian, Portuguese and Spanish. By considering the conditioning of variation between subjunctive and indicative in complement clauses, we operationalize parameters of late-stage grammaticalization, and establish measures of productivity. Results show that, with the exception of Spanish, subjunctive selection is constrained neither by contextual elements consistent with its oft-ascribed meanings nor by semantic classes of governors harmonic with such meanings. Instead, in all four languages, lexical bias is the major predictor of subjunctive selection, abetted by structural elements of the linguistic context. The overriding processes are *lexical routinization*, which is language-particular, with cognate governors displaying idiosyncratic associations with the subjunctive, and *structural conventionalization*, which is cross-linguistically parallel, with languages differing merely in degree.

Keywords: late-stage grammaticalization, language variation, cross-linguistic comparisons, subjunctive, conventionalization

1 Introduction

The Romance languages are often characterized as forming a continuum with respect to their common ancestor, Latin. Their differential evolution has been viewed in terms of increasing grammaticalization, the process by which items take on grammatical meaning and form. Recent work (e.g. Carlier/De Mulder/Lamiroy 2012b; Lamiroy/De Mulder 2011) proposes that not only are linguistic phenomena located at different points on the cline in different languages, but also that the languages themselves may be so positioned vis-à-vis each other. In this respect, there seems to be widespread agreement, based on a considerable number of linguistic features, that French is most advanced as compared to its sisters, Italian is intermediate, and Spanish most conservative, with Portuguese (albeit only sparsely studied) lagging even further behind. This is summarized in the hypothetical gram-

matalization cline (adopted from Carlier/De Mulder/Lamiroy 2012a; Lindschouw 2011; Loengarov 2006, 23) in (1).



In this chapter we contribute to the enterprise of cross-linguistic comparison by focusing on the linguistic structure of language-internal variability. Drawing on the framework of variationist sociolinguistics, we make use of the facts of variability to discern *structure* from the distribution and conditioning of variant forms. This structure, instantiated in the quantitative patterning of variants across elements of the context, can be converted into a diagnostic and compared across sister languages, offering a detailed view of their relative positions on the cline. Our focus is the Romance subjunctive, the topic of much prescriptive and (ostensibly) descriptive linguistic attention (see also ↗2 Quantitative approaches for modelling variation and change; ↗6 Speaker variables in Romance).

While there is some quantitative support for claims of advancing grammaticalization of the subjunctive in Romance (e.g. Kragh 2010; Loengarov 2006; Lindschouw 2011), they have not yet been tested systematically on synchronic spoken usage data, nor has the variability inherent in each of the languages been given due consideration. In this chapter we fill this void by comparing subjunctive usage in complement clauses in spontaneous speech corpora of French (FR), Spanish (SP), Italian (IT) and Portuguese (PTG). The inherent variability characteristic of speech is incorporated into the comparative method of historical linguistics, by considering not merely attestation or frequency of a given variant, but also details of its co-occurrence and distribution. This allows us to gauge *degree* of grammaticalization (Poplack 2011; Torres Cacoullous 2012).

Marshalling the tools of variationist sociolinguistics, we will show that the status of the subjunctive as more or less *grammaticalized* emerges from not one, but a series of interrelated measures. Moreover, the positioning of the languages relative to each other on the cline differs according to the measure adopted. However, despite cross-linguistic differences in overall *rates* of subjunctive usage – the measure on which clines such as that in (1) tend to be (implicitly or explicitly) based – the *conditioning* of subjunctive selection, which we take as a portion of the grammar underlying mood choice, turns out to be remarkably similar. Based on these findings, described in detail in ensuing sections, we propose a cline which bears some similarity to that in (1), but not for the same reasons. Instead we show that the subjunctive is *lexically routinized* across these Romance languages, with varying governors acting idiosyncratically as protagonists in each, but *structurally constrained* in similar ways, albeit to different degrees. In so doing, we illustrate how a comparative Romance approach based on synchronic variation patterns affords a view of a long-term process of grammaticalization now in its final stages.

2 The Romance subjunctive

The Romance subjunctive would seem to represent the ideal test case for a study of grammaticalization clines. Its many uses in Latin have been copiously described, and it appears to have been transmitted (in some form or another) to most if not all of its descendants, whose major representatives have also been amply studied. Interestingly, despite controversy over the precise nature of its linguistic function (whether syntactic or semantic, see especially Harris 1974; 1978), the general assumption is that the modal interpretation of the subjunctive was transmitted to Romance along with the form. This has certainly been the prescriptive take on the situation in the four languages we focus on here, as illustrated in (2).

(2) a. FRENCH

“On met le verbe au subjonctif quand par ce verbe on veut marquer une chose qui tient du doute ou du souhait, sans affirmer absolument qu’elle est, étoit, a été, sera, seroit, ou auroit été” (Wailly 1768, 279).

‘We put the verb in the subjunctive when by that verb we want to mark a thing that is in doubt or wished for, without absolutely asserting that it is, was, has been, will be, would be or would have been.’¹

b. ITALIAN

“Il congiuntivo è il modo del desiderio, dell’opinione, della volontà” (Sobrero/Beccaria/Marazzini 1987, 416).

‘The subjunctive is the mood of desire, opinion, volition.’

c. PORTUGUESE

“...as formas do subjuntivo enunciam a ação do verbo como eventual, incerta, ou irreal, em dependência estreita com a vontade, a imaginação ou o sentimento daquele que as emprega” (Cunha/Cintra 1985, 461).

‘Subjunctive forms state the verbal action as possible, uncertain or unreal, depending closely on the will, imagination or feeling of the one who employs them.’

d. SPANISH

“El modo *subjuntivo*, que no expresa nunca por sí solo, como el indicativo, afirmaciones absolutas, y cuyo sentido es optativo, desiderativo ó condicional...” (Real Academia Española 1906, 64).

‘The subjunctive mood, which, unlike the indicative, never expresses on its own absolute assertions, and whose meaning is optative, desiderative or conditional...’

And this prescriptive position is essentially echoed in the bulk of the myriad contemporary theoretical linguistic treatments of the Romance subjunctive, where

¹ Given the fact that we systematically compare data from four different languages throughout this chapter, we provide our own translations for ease of comprehension.

much effort continues to be invested in characterizing its semantic contribution.

But there is also a lexical angle to subjunctive selection. A robust prescriptive tradition aiming to identify the set of governors requiring a subjunctive in the complement clause has developed concomitantly, as illustrated with the few representative citations (spanning nearly three centuries) in (3).

(3) a. FRENCH

“On se sert encore du Conjonctif, avec la conjonction *que*. 1. Après les verbes suivants, *vouloir, souhaiter, désirer, prétendre, commander, prier, permettre, défendre, persuader, dissuader, exhorter, craindre, appréhender, avoir peur, douter, s'étonner, être surpris, admirer ...*” (La Touche 1730, 287).

‘We still use the subjunctive, with the conjunction *que* ‘that’. 1. After the following verbs ...’

b. ITALIAN

“Il congiuntivo si usa (quasi esclusivamente) in frasi dipendenti. In particolare si usa dopo questi verbi: *volere che, ordinare che, non vedere l'ora che, decidere che, aspettare che, sperare che, desiderare che, augurarsi che, avere paura che, temere che, dispiacere che, essere contento che, non essere sicuro che, domandare se, credere che, pensare che, ritenere che, immaginare che, preferire che, chiedere se*” (Tartaglione 2008, 40).

‘The subjunctive is used (almost exclusively) in dependent clauses. In particular, it is used after these verbs: ...’

c. PORTUGUESE

“Depois das formulas propositivas *é possível, é necessário, é conveniente, é mister, é provável, é preciso, é justo, é crível, é fácil, é difícil, é presumível, é impossível, é bom, é vergonhoso* e outras análogas, sempre se emprega, hoje em dia, o modo subjuntivo” (Ribeiro 1955, 598).

‘After the propositional formulas [...] and other similar ones, these days the subjunctive is always used.’

d. SPANISH

“El subjuntivo ... subordinándose o pudiéndose subordinar ... significa la cosa mandada, rogada, aconsejada, permitida, en una palabra, deseada ... *Quiero/Deseo/Ruego/Te encargo/Permito/Te aconsejo/Te prohíbo* – que estudies el derecho” (Bello 1847, § 457).

‘The subjunctive [...] subordinated or capable of being subordinated ... means the thing that is commanded, beseeched, advised, permitted, in a word, desired ...’

Many of these governors are the same across Romance (whether due to direct inheritance from Latin or imposition of its categories on its daughters), and their meaning is typically characterized as harmonic with the (presumed) meaning of the subjunctive, as illustrated in (3d) and (4). The twin requirements that the subjunctive be semanti-

cally motivated and at the same time lexically mandated are thus not seen by most analysts as contradictory.

- (4) “O conjuntivo é o modo exigido nas orações que dependem de verbos cujo sentido está ligado à ideia de ordem, de proibição, de desejo, de vontade, de súplica, de condição e outras correlatas. É o caso, por exemplo, dos verbos *desejar, duvidar, implorar, lamentar, negar, ordenar, pedir, proibir, querer, rogar e suplicar*” (Mateus 1983, 148).

‘The subjunctive is the mood required in clauses embedded under verbs whose meaning is tied to the idea of order, prohibition, desire, will, appeal, condition and other related notions. This is the case, for instance, of the verbs ...’

3 Operationalizing parameters of advanced grammaticalization

In this context, it is plain that the subjunctive lends itself particularly well to a study of grammaticalization in its final stages. Bybee/Perkins/Pagliuca’s (1994, 214) proposal for the grammaticalization path of the subjunctive is generally taken to be consistent with the Romance situation, albeit to different degrees depending on the language. In the scenario they outline, the subjunctive is first used in complement clauses with the same meaning it has in main clauses. As such uses increase in frequency, the semantic contribution of the subordinate mood weakens (presumably abetted by the redundancy of expressing modality twice), eventually leading to its (re-)analysis as a concomitant, if not a marker, of subordination. Once this has occurred, the subjunctive may spread to embedded clause types whose meaning is no longer harmonic with that of the matrix clause, and where it itself makes little or no semantic contribution. After this, the only development left is extinction.

Departing from the above scenario, Lamiroy/DeMulder (2011) and Carlier/De Mulder/Lamiroy (2012a) offer the following justifications for their proposed grammaticalization cline in (1):

- 1) The subjunctive is less frequent in French than in Spanish or Italian (Lamiroy/De Mulder 2011, 312), and within French it is declining in favour of the indicative, thereby bringing it closer to the final stage, disappearance;
- 2) Subjunctive selection is often semantically motivated in Spanish and Italian (Loengarov 2006, cited in Carlier/De Mulder/Lamiroy 2012a, 291), while in French it is largely lexically determined by the governor.²

² Lamiroy/De Mulder (2011) also invoke the greater syncretism between the forms of indicative and subjunctive in French, further blurring the distinction between them. Cf. our discussion in section 5.4 below.

To test these claims, we move beyond comparison of overall rates (which we will show to be grossly misleading) to privilege conditioning of subjunctive selection cross-linguistically. As will be seen in section 6, the subjunctive is used *variably* in all four languages, even in contexts that are typically construed as categorically subjunctive- (and sometimes indicative-) selecting. Capitalizing on the variationist sociolinguistic framework, we make use of these facts to discern the structure of variability from the distribution and conditioning of variant forms (Poplack 2011). This structure can be converted into a diagnostic and compared across the sister languages, offering a detailed view of their relative positions on the cline. Assuming that the subjunctive was at least sometimes meaningful in Latin, if it can be established that it is currently used in contexts where it contributes no independent meaning in a given daughter language, the inference that this meaning has been *lost* is straightforward, a fortiori if its selection is dictated, solely or overwhelmingly, by structural elements of the linguistic context. This would position the language in question farther along the grammaticalization cline relative to another in which the subjunctive has “retained” its meaning.

We operationalize hypotheses relating to two general concomitants of advancing grammaticalization: semantic bleaching, or *desemanticization* (Heine/Reh 1984, 36), and what has variously been referred to as ritualization (Haiman 1994), obligatorification (Lehmann 1995) and loss of “freedom” (Haspelmath 1998, 318). Here we invoke such notions under the label *conventionalization*, which we define as an increasing association between structural context and variant, and concomitant reduction or loss of “free” (semantically-motivated) choice amongst them. Desemanticization and conventionalization together imply decreased productivity. To the extent that subjunctive selection is determined by local linguistic context rather than meaning, we will infer that it has grammaticalized to a greater degree and become less productive.

4 A benchmark for change

In order to position the daughter languages along the cline, we must first establish the original state from which they have evolved. It is widely agreed that the source is Latin, but the situation of the subjunctive in the ancestor – at different stages and in different contexts – is subject to debate. The implication of most of the studies that treat this issue is that the Latin subjunctive was meaningful, at least in main clauses (e.g. Magni 2010, 204–206 and references therein). But Harris and others have provided cogent arguments that a large group of subjunctives (including the embedded complement clauses we focus on here) lost any association with the semantic value of the matrix verb (governor) and were “conditioned markers of subordination already in Latin – popular Latin at least” (Harris 1974, 175). The synchronic behaviour of the subjunctive in Romance described below is entirely consistent with this view, but pending systematic investigation of Latin texts (Digesto, in progress), we remain

agnostic on the meaningfulness of the subjunctive in the benchmark. For the purpose of this chapter, however, which is to demonstrate what the study of inherent variability reveals about the relative position of the descendant languages with respect to each other, we assume an *idealized* state of the ancestor in which the subjunctive 1) made a semantic contribution, and 2) did so both consistently and categorically, i.e. whenever the conditions for its use were present. We stress that this is a heuristic only, and should not be taken as an endorsement of this position.

5 A variationist perspective

The premise that the subjunctive was meaningful in Latin is no doubt at the root of the associated widespread assumption that it is meaningful in (at least standard varieties of) modern-day Romance as well. But with the notable exception of (Canadian) French, virtually absent from this literature is systematic study of how speakers actually *use* the subjunctive.³ Though much prescriptive attention has been lavished on usage rules, Poplack (1990; 1992), Poplack/Lealess/Dion (2013) and Kastronic (2016) showed for French that these are rarely if ever followed in the community; speakers abide by an entirely different set of (untaught) constraints instead. The current investigation will ascertain the extent to which the same holds true for the other languages.

5.1 Mood choice as a linguistic variable

The core construct of the variationist framework is the *linguistic variable*, defined as the set of alternate ways of expressing the same thing (Labov 1972). In what sense can mood selection be considered a linguistic variable if its major variants (subjunctive and indicative) are typically construed as ways of expressing *different* things? As per the principle of neutralization-in-discourse (Sankoff 1988), in certain well-defined contexts, the distinct semantic contributions forms may make elsewhere are nullified. This is a well-documented phenomenon in language (witness the behaviour of the present tense in past and future temporal reference contexts, for example), and we have demonstrated elsewhere for French that it applies to the subjunctive in embedded complement clauses as well (Poplack 1990; 1992; 2001; Poplack/Turpin 1999). Our appeal to the linguistic variable as a heuristic captures the observation, illustrated in (5)–(8) below, that the *same* governor or apparent

³ As a study of complement clauses, Loengarov (2006) is most comparable to the present work, though it is more limited (e.g. to eight governors in one grammatical person [3rd] and one tense [present], according to two independent variables), and is based on internet data as a surrogate for speech.

synonym, in the same language or cross-linguistically, may co-occur with *different* moods in the embedded clause, with no patently verifiable change in meaning. For this reason, in this study we circumscribe the variable context to verbs embedded under *subjunctive-selecting governors*, as defined in section 5.5 below. The working hypothesis of the variationist method is that within a given variable context, “competing variants will occur at greater or lesser rates depending on the features that constitute the context” (Poplack 2001, 405). Thus, if the variant forms do in fact make *different* semantic contributions, they should be observed in the aggregate to occur at higher or lower than average rates in certain (sub)contexts. We test this hypothesis in section 7 below.

5.2 Data

We noted above that mood selection has been the focus of extraordinary normative (and theoretical linguistic) attention. Its thrust has been to promulgate categorical selection of the subjunctive in certain contexts and to eradicate any appearance of variability in others by assigning to each variant a distinct function, but with little consensus as to what that function may be (Poplack et al. 2015; Poplack/Lealess/Dion 2013). Accordingly, we can expect its use in written sources to be tainted, in unknown and unpredictable ways, by adherence, or lack thereof, to (conflicting) prescriptive injunctions. Moreover, empirical studies (Poplack 1990; 1992; 2001; Poplack/Lealess/Dion 2013) have shown, and the analyses to follow will confirm, that in actual usage, subjunctive selection is *variable*. No descriptively adequate account can fail to take this fact into consideration. We therefore privilege spontaneous speech as the data source on which we base this study. Spoken usage is the most hospitable to inherent variability, and to the extent that it is free from self-monitoring and the vagaries of superimposed rules, it offers the most systematic data for linguistic analysis (Labov 1984, 29).

Table 1: Characteristics of the data used for the current study

	PORTUGUESE	FRENCH	ITALIAN	SPANISH
Corpus name	<i>Amostra Linguística do Interior Paulista</i> (Gonçalves 2003)	<i>Corpus du français parlé à Ottawa-Hull</i> (Poplack 1989)	<i>C-ORAL-ROM Integrated Reference Corpora for Spoken Romance Languages</i> (subsampling) (Cresti/Moneglia 2005)	<i>Corpus sociolingüístico de la ciudad de México</i> (subsampling) (Martín Butragueño/Lastra 2011–2015)
N words	785,000	3.5 million	310,000	410,000
N speakers	152	120	198 (of 377)	36 (of 108)
Speaker DOB	1915–1996	1893–1965	Unspecified	1910–1981
Speaker age	8–89	17–89	18+	25–91
Data collection	2003–2005	Early 1980s ⁴	2000–2003	1997–2007
Speaker geographic provenance	7 cities from São Paulo State, Brazil	Ottawa/Gatineau Canada	Various	Mexico City

The characteristics of the corpora exploited here are summarized in Table 1. All were collected within the same 25-year period, and contain a range of speakers of varying ages. Where different genres were available, only the spontaneous speech portions were included. Each of course deals with a limited geographical area; reference to them by hypernyms like “French” or “Italian” is therefore for convenience only. All four corpora were constructed according to the same broad sociolinguistic principles, deriving from the stated goal of documenting spontaneous speech. But they were gathered for different purposes by different fieldworkers, make use of somewhat different data collection methodology, and accordingly, differ somewhat according to speech style. Any of these discrepancies could theoretically give rise to differences in subjunctive usage, a problem that besets virtually all cross-corpus comparison, regardless of variable. But while *rates* of a variant are indeed sensitive to such factors, its distribution across contexts has been shown repeatedly to remain consistent across data sets (e.g. Poplack/Tagliamonte 2001, 92). This vitiates the corpus as explanatory of the cross-linguistic differences (and similarities) detailed below.

⁴ Although the French corpus was collected approximately 20 years prior to the others, this does not explain the differences we will see French to display vis-à-vis the other languages. The same patterns obtain in a corpus of French collected in 2005–2007 (Poplack/Lealess/Dion 2013).

5.3 Extraction protocol

The transcriptions retained from each corpus were concordanced, and every occurrence of a verb featuring unambiguous subjunctive morphology, regardless of the context in which it was realized, was identified and extracted. Depending on the language, this could involve a wide variety of forms. Portuguese features perhaps the richest inventory in this regard, with dedicated morphological inflections for the present, present perfect, imperfect, pluperfect, future, and anterior future subjunctive tenses. Italian and Spanish distinguish present, present perfect, imperfect and pluperfect, while at the other end of the spectrum, spoken French features only a present, and the occasional present perfect, subjunctive.

5.4 Locating the subjunctive

Of course, studying the subjunctive in running speech requires being able to recognize it when it occurs. With the notable exception of Spanish, in each of the languages, albeit to very different extents, syncretism has resulted in forms whose morphological role is impossible to identify. In Portuguese, for example, such ambiguous cases are limited to the 1st, 2nd and 3rd p. pl. of the verb *ir* ‘go’ (*nós vamos* ‘we go’; *você/eles vão* ‘you-pl/they go’). In Italian, they are restricted to two contexts: 2nd p. sg. for the verbs of the first (-*are*) conjugation (e.g. *tu ami* ‘you love’), and 1st p. pl. across all three conjugations (e.g. *noi am-iamo* [-*are*] ‘we love’, *scriv-iamo* [-*ere*] ‘we write’, *sent-iamo* [-*ire*] ‘we feel’).⁵

⁵ Italian imperfect subjunctive is also homophonous with simple past in 2nd p. pl (e.g. *voi amaste*_[PAST, IMP SUBJ] ‘you loved’). There is also homophony in Italian, Portuguese and Spanish between (some) forms of the imperative and the subjunctive. But because these do not co-occur in the same constructions, there is no ambiguity.

Table 2: Syncretism in French (shading indicates ambiguous SUBJUNCTIVE/INDICATIVE morphology)

1 st group (-er)		2 nd group (-ir ₁)		3 rd group (-ir ₂) ⁶	
<i>manger</i> ‘eat’		<i>finir</i> ‘finish’		<i>sentir</i> ‘feel/smell’	
INDICATIVE	SUBJUNCTIVE	INDICATIVE	SUBJUNCTIVE	INDICATIVE	SUBJUNCTIVE
<i>mange</i>	<i>mange</i>	<i>finis</i>	<i>finisse</i>	<i>sens</i>	<i>sente</i>
<i>manges</i>	<i>manges</i>	<i>finis</i>	<i>finisses</i>	<i>sens</i>	<i>sentes</i>
<i>mange</i>	<i>mange</i>	<i>finit</i>	<i>finisse</i>	<i>sent</i>	<i>sente</i>
<i>mangeons</i>	<i>mangions</i>	<i>finissons</i>	<i>finissions</i>	<i>sentons</i>	<i>sentions</i>
<i>mangez</i>	<i>mangiez</i>	<i>finissez</i>	<i>finissiez</i>	<i>sentez</i>	<i>sentiez</i>
<i>mangent</i>	<i>mangent</i>	<i>finissent</i>	<i>finissent</i>	<i>sentent</i>	<i>sentent</i>

French displays far more syncretism than the other languages. As depicted by the shading in Table 2, verbs of the most frequent first conjugation class (-er) are ambiguous in all persons but the rarely used 1st and 2nd p. pl.⁷ Also morphologically ambiguous are 3rd p. pl. forms of verbs from the second conjugation (-ir₁) and one subclass of verbs from the third (-ir₂).

Importantly, all cases in which the morphology does not distinguish subjunctive from indicative were excluded from ensuing analyses, limiting this study to *unambiguous* instances of subjunctive selection in each language.⁸ The remaining data were then scrutinized to isolate and retain only the tokens that fell within the variable context, initially characterized as tensed clauses governed by a (subjunctive-selecting) matrix verb + complementizer (*que/che/Ø*).⁹ As such, subjunctives occurring in other contexts (differentially according to language) are not considered here: main-clause

⁶ The French 3rd conjugation contains a number of endings (e.g. -re, -oir) and irregular verbs (e.g. *aller*). Ambiguous in this context are -ir verbs whose present participles are not conjugated with -iss- (referred to here as -ir₂ verbs), such as *sentir* in Table 2).

⁷ 1st p. pl. pronoun *nous*, which is all but absent in Canadian French, has been replaced with 3rd p. sg. *on*, and formal 2nd p. sg. *vous* is rare.

⁸ Syncretism affects data extraction insofar as potential governors may not be identifiable. Thanks to the protocols employed here, we could establish that approximately 50% of the French tokens that would otherwise have qualified as falling under the variable context were morphologically ambiguous. This situation reflects the experience of actual language users, for whom the interpretation of ambiguous morphology is unknown. Indeed, some (e.g. Lamiroy/De Mulder 2011) specifically implicate morphological syncretism in the decreasing vitality of the French subjunctive.

⁹ Complementizer deletion is variable in French and Italian (occurring at a rate of approximately 15% [and applying to fewer than one third of the governors in the latter]), rare in Portuguese (2%, restricted to coordinate clauses) and (virtually) non-existent in spontaneous spoken Spanish beyond some formulaic uses (Silva-Corvalán 1994, 137). There were no cases in this corpus.

subjunctives, those governed by adverbial or other non-verbal expressions, and those in relative clauses, protases of hypothetical *si*-complexes, and indirect questions.

5.5 Identifying subjunctive-selecting governors

Tokens remaining after these exclusions were further examined to identify the “subjunctive-selecting” governors in each language. The implication of both the linguistic literature and the prescriptive enterprise is that these constitute a readily identifiable set. But as detailed in Poplack/Lealess/Dion (2013), nothing could be farther from the case. Linguistic analyses tend to focus on a small cohort of “interesting” matrix verbs and verb classes. Grammarians, on the other hand, cite hundreds, but with little consensus amongst them. This constitutes a real problem for any meaningful empirical account of the situation, since, by the principle of accountability (Labov 1972, 72), we must ascertain not only where speakers selected a subjunctive, but also where they *could have* even if they did not. This requires being able to delimit the pool of *potential* subjunctive governors, an endeavour complicated not only by the above considerations, but by the fact that contrary to what is implied by the grammaticalization cline in (1), these turn out to differ from one Romance language to the next. For example, the descendant of Lt. *crēdere* ‘believe’ co-occurs in the affirmative with subjunctive robustly in Italian (79%, N = 100), rarely in Spanish and Portuguese (1%, N = 291 and 13%, N = 15, respectively), and never in French (see Table 7 below).

Following earlier studies (Poplack 1990; 1992; Poplack/Lealess/Dion 2013), here we take a pragmatic approach to this problem. For each token featuring unambiguous subjunctive morphology in each corpus, we noted the governor under which it occurred. The set of “subjunctive-selecting” governors thus identified was taken to be the locus in which subjunctive selection was a possibility. The constitution of this set differs from one language to another (ranging from 37 members in French to 111 in Spanish), since at the first step, a token was only extracted if it contained a subjunctive. On a second pass, *all* verbs embedded under each matrix verb having governed at least one subjunctive were exhaustively extracted, regardless of the variant selected (subjunctive vs indicative).¹⁰ By determining the identity of *potential* subjunctive governors, this procedure not only yields an accountable – and importantly, comparable – circumscription of the locus of variation, it also enables us to assess the *propensity* of each governor to select for a given variant in each language, as well as its *frequency* in running speech. Both of these measures will prove pivotal in the analyses to follow.

¹⁰ Not surprisingly, the variants embedded under subjunctive-selecting governors also differ cross-linguistically. For example, embedded conditionals figure rather prominently (approximately 8%) in French, largely following matrix verb conditionals, though these are quite rare in Spanish (N = 20), Italian (N = 12) and Portuguese (N = 5). Here we simply distinguish variants as indicative (including conditional) and subjunctive.

As a result of these considerations, the variable context, determined corpus-internally, can now be formulated as *every tensed clause governed by a matrix verb that triggered the subjunctive at least once in a given corpus*.¹¹ This resulted in a data set of nearly 5000 tokens, of both subjunctive *and* indicative, distributed cross-linguistically as in Figure 1.

6 Results

A first observation is that every one of the languages displays robust variability, with rates of subjunctive – under subjunctive-selecting governors! – ranging between 37 % and 76 % (Figure 1). The prediction of the Romance grammaticalization cline in (1) is that the lowest subjunctive rate should obtain in French, as the language having strayed farthest from the (idealized) Latin model, or the most grammaticalized of its sisters (De Mulder/Lamiroy 2012, 208).

However, measured in terms of overall rate of competing variants, it is Spanish, at only 37 % subjunctive, that appears most advanced, while Italian and French seem most conservative by far, as in the revised grammaticalization cline in Figure 2.

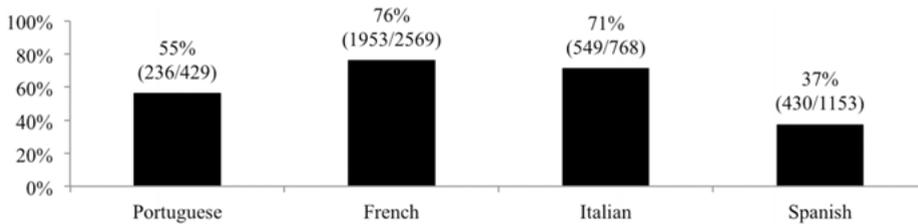


Figure 1: Rate of subjunctive by language.



Figure 2: Grammaticalization cline based on overall subjunctive rate.

¹¹ One exception to this rule involved governors whose co-occurrence with one or a few subjunctives was vastly outnumbered by hundreds of occurrences with the indicative. An illustrative example comes from Portuguese *achar* ‘think, find’. *Achar* is by far the most frequent governor in the corpus, constituting on its own 77 % of the entire governor pool, but it only occurred with the subjunctive 0.7 % of the time (N = 11), and these occurrences in turn were largely formulaic. When *achar* is included in the governor pool, the overall rate of subjunctive in Portuguese drops to 13%; without it, it is 55%. The vastly disproportionate frequency of *achar*, coupled with the non-productive nature of its use, led us to exclude this governor from the quantitative analyses to avoid unwarranted skewing of the results.

Note that this variability obtains not only across languages, but also within them, since the same matrix verb can co-occur with both subjunctive and indicative in the same context, as exemplified in (5)–(8) with the governors descending from Lt. *crēdere* ‘believe’ in the four languages.

- (5) a. Je **crois** pas que ce **soit**_[SUBJ] la fin du monde. (FR.060.195)¹²
‘I don’t think that it would be the end of the world.’
- b. Je **crois** pas que l’âge **a**_[IND] tant à faire que ça. (FR.003.189)
‘I don’t think that age has that much to do with it.’
- (6) a. Eu **acredito** que **vá**_[SUBJ] **sair**. (PTG.143.356)
‘I believe that it will come out.’
- b. Eu **acredito** que ele **devia**_[IND] **ter** em torno de setenta anos de idade.
(PTG.099.148)
‘I believe that he must be around seventy years old.’
- (7) a. **Credo** che tutti lo **sappiate**_[SUBJ]. (IT.438.218)
‘I believe that everyone knows it.’
- b. **Credo** che tutto **ritorna**_[IND]. (IT.511.264)
‘I believe that everything comes back.’
- (8) a. No **creo** que le **vayas**_[SUBJ] a entender mucho. (SP.014.528)
‘I don’t think you’re going to understand it much.’
- b. No **creo** que **hay**_[IND] que firmar. (SP.086.555)
‘I don’t think you have to sign.’

The key question, to which we turn in ensuing sections, is what constrains this variability?

¹² Transcription conventions are reproduced from those adopted in the respective corpora. Codes in parentheses refer to language, speaker number, and line number of the utterance in our concordance of the corresponding corpus (speaker turn number, in Spanish).

7 Semantic conditioning

Many would claim that subjunctive is selected as a function of the meaning to be conveyed. A crucial caveat is that most of the meanings proposed arise from the analyst's construal of the beliefs, wishes and feelings of the speaker, and as we have detailed elsewhere (Poplack 1990; 1992; Poplack/Lealess/Dion 2013), there is no objective way to determine what these are, let alone operationalize and test them. On the other hand, the assumption that the meaning of the subjunctive is entirely embodied in its form is circular. Accordingly, here we investigate the semantic contribution of the subjunctive by identifying explicit cues of irrealis modality in the discourse *independent of* the morphology of the embedded verb.

Though cognizant of claims that the forms themselves are the sole carriers of the meaning, we assume that, given the redundancy characterizing other grammatical domains, at least some tokens of the forms will co-occur with congruent contextual elements. We make use of these co-occurrence facts (whether clause-internal or elsewhere in the larger discourse) to ascertain whether and to what degree the irrealis modality meanings said to motivate variant choice are operative in speaker usage, if at all.

7.1 Structure of the matrix clause

One set of contextual elements resides in the structure of the matrix clause. If the subjunctive signals “non-commitment of the speaker” (De Mulder/Lamiroy 2012, 210, among many others), negated, interrogative and conditional matrices – “non-assertive contexts [...] which do not claim the truth of the corresponding positive statement” (Haspelmath 2003, 220) – should favour its selection more than their affirmative (or more assertive) counterparts.

Negation, often associated with the subjunctive, is “more apt to be tinged with an attitude” (Bolinger 1974, 465), functions to deny states or events (Thompson 1998) or is generally associated with irrealis or presupposition rather than assertion (Chafe 1995; Givón 1978). Yet subjunctive and indicative alternate under the same negated governor, as illustrated in (9)–(10).

- (9) a. Jamais **imaginava** que a moça **fosse**_[SUBJ] ... embora do jeito que foi.
(PTG.142.100)
'I never imagined that the girl would leave the way she did.'
- b. Mas eu num **imaginava** que lá **era**_[IND] o extremo do extremo do extremo.
(PTG.087.387)
'But I didn't imagine that it was the end of the end of the end.'

- (10) a. Ma non **credo** che il comitato **abbia**_[SUBJ] bisogno di portavoci. (IT.427.52)
 ‘But I don’t think that the committee needs spokesmen.’
- b. Ma non **credo** che ce li **ha**_[IND] sfusi. (IT.106.221)
 ‘But I don’t think that he has them in bulk.’

Interrogatives (11) should also favour subjunctive choice because they “serve the interactional function of questioning” (Thompson 1998, 331) and, like negatives, do not assert.¹³

- (11) a. Cê **qué(r)** que eu **ensine**_[SUBJ]? (PTG.021.204)
 ‘Do you want me to teach?’
- b. Então você **qué(r)** que **dá**_[IND] as características? (PTG.028.96)
 ‘So you want me to give the features?’

Table 3 and Figure 3 show that this hypothesis is not supported for three of the languages. If anything, in French and Italian, “irrealis” matrices actually impede the subjunctive. Only in Spanish do such contexts favour its use.

Table 3: Contribution of structure of the matrix clause to the selection of the subjunctive (shading indicates contexts that promote subjunctive use)

	PORTUGUESE		FRENCH ¹⁴		ITALIAN		SPANISH	
	%	N	%	N	%	N	%	N
Neg/Cond/Int	56	53/94	44	223/502	60	102/169	74	167/226
Affirmative	55	183/330	60	237/398	75	447/599	28	263/927
Total	56	236/424	51	460/900	71	549/768	37	430/1153

¹³ Likewise, insofar as it conveys uncertainty, subjunctive should be selected when the realization of the situation depends on the satisfaction of a previously expressed condition, as when the matrix clause is part of a conditional complex.

¹⁴ When governor *falloir* (overwhelmingly *il faut*) is included: Neg/Int/Cond = 52% (N = 378/727); Affirmative = 86% (N = 1575/1832).

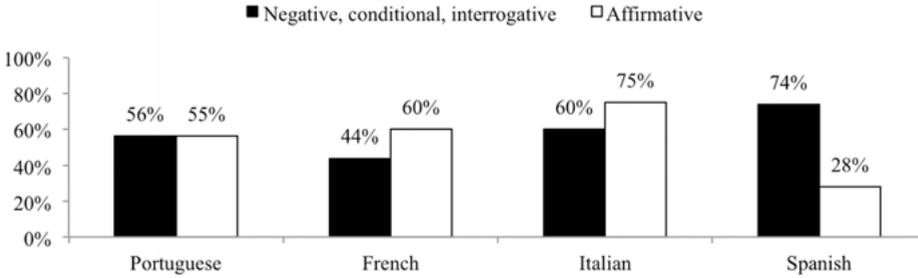


Figure 3: Contribution of structure of the matrix clause to the selection of the subjunctive

7.2 Other indicators of non-factual modality

We might also expect, by the principle of redundancy, that any meaning expressed by the subjunctive would be echoed elsewhere in the discourse. We assessed this possibility by identifying *other* components of the context which could contribute to a non-factual reading, whether expressed lexically by elements such as epistemic ('maybe', 'probably') and valuative ('hopefully') adverbs (Givón 1994, 271), modally (by auxiliaries, for example) (12), or through tense-mood selection in the matrix (future, conditional, subjunctive) (13), and may therefore be predicted to favour subjunctive selection.

- (12) a. Quindi **può darsi** che nel prosiegua di questa missione questa **diventi**_[SUBJ] la missione più pericolosa. (IT.556.45)
 'So it may be that in the pursuit of this mission this turns out to be the most dangerous mission.'
- b. **Può darsi** ce l'**ha**_[IND] anche il Neri questi filini. (IT.105.268)
 'It may be that Neri also has them, these little threads.'
- (13) a. Eu **gostaria**_[COND] que todos os cômodos da casa **tivesse**_[SUBJ] porta de corê(r). (PTG.099.229)
 'I wish all the rooms in the house had sliding doors.'
- b. Porque se você **tiver**_[SUBJ] **esperança** de que um dia o país **vai**_[IND] **melhorar**... você vota no 'sim'... (PTG.045.395)
 'Because if you have hope that one day the country will get better...you vote "yes"...'

The variability depicted in (12–13), coupled with the results in Table 4 and Figure 4, together demonstrate that this measure again lends no support to the semantic

hypothesis for Portuguese, French and Italian. In these languages, utterances featuring explicit indicators of non-factual modality are no more likely to trigger a subjunctive than those with none. Again, Spanish is the odd man out: here the subjunctive is about twice as likely to surface in such contexts as not.

Table 4: Contribution of other indicators of non-factual modality to the selection of the subjunctive (shading indicates contexts promoting subjunctive use)

	PORTUGUESE		FRENCH ¹⁵		ITALIAN		SPANISH	
	%	N	%	N	%	N	%	N
Presence	54	31/57	49	110/223	72	90/125	59	115/194
Absence	56	205/367	52	350/677	71	459/643	33	315/959
Total	56	236/424	51	460/900	71	549/768	37	430/1153

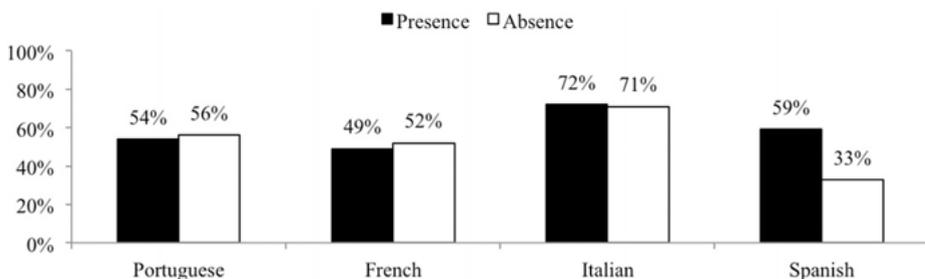


Figure 4: Contribution of other indicators of non-factual modality to the selection of the subjunctive

7.3 Semantic class of the governor

Another recurrent claim is that the semantic features activating the subjunctive in the embedded clause are embodied in the *governor*. If so, a number of predictions should hold true. First, governors identified as “subjunctive-selecting” should trigger that mood categorically. The results in Table 5 show that for Portuguese, French and Italian they do not, even in volitive verbs, widely touted as the wellspring of subjunctive morphology. Spanish again displays a different profile: here the prototypical volitive *querer* ‘want’ governs the subjunctive *each* of the 65 times it surfaces as a

¹⁵ French has proportionally more cases of matrix verbs in the conditional and displays tense concordance (embedded verbs not in the subjunctive tend to agree with the tense of the matrix) (Poplack 1992, 253). When *falloir* is included: Presence = 57 % (N = 257/452); Absence = 80 % (N = 1696/2117).

governor, as exemplified in (14). In fact, all Spanish volitives of moderate frequency trigger the subjunctive categorically or nearly so.

(14) **Quisieran** que **fuera**_[SUBJ] abogado/pero no que **estudiara**_[SUBJ] literatura.
(sp.026.162)

‘They would like him to be a lawyer, but not that he study literature.’

Table 5: Subjunctive rates under governors meaning ‘want, desire’

LANGUAGE	GOVERNOR	%	N
Portuguese	<i>querer</i>	76	71/93
French	<i>vouloir</i>	91	249/273
Italian	<i>volere</i>	92	22/24
Spanish	<i>querer</i>	100	65/65

Second, every member of each semantic class (volitive, epistemic, etc.) of subjunctive-selecting governors (assuming that these can be identified – but cf. Poplack 1990, 25) should co-occur with a subjunctive. This is not the case for Portuguese, French or Italian. Consider for example the epistemic verbs in Table 6: PTG *acreditar* has a rate of only 31 % subjunctive, but *pensar* almost never triggers one (15). Even in Spanish, subjunctive rates vary wildly within the “class” of epistemic governors: compare *ser posible*, categorically associated with the subjunctive, with the others, as illustrated in (16).

Table 6: Subjunctive rates under epistemic governors in Portuguese and Spanish

LANGUAGE	GOVERNOR	GLOSS	%	N
Portuguese	<i>acreditar</i>	‘believe’	31	22/70
	<i>crer</i>	‘believe’	13	2/15
	<i>pensar</i>	‘think’	5	3/55
Spanish	<i>ser posible</i>	‘be possible’	100	11/11
	<i>suponer</i>	‘suppose’	6	2/33
	<i>imaginar</i>	‘imagine’	4	1/26
	<i>sentir</i>	‘feel’	9	1/11

(15) a. Eles ainda **acredita** que eles **podem**_[IND] **i(r)** mais longe ainda com a peça deles. (PTG.037.184)

‘They still believe that they can go still further with their play.’

- b. Ele num sabia que a mandioca dava no chão (risos)... ele **pensava** que mandioca **dava**_[IND] na árvore. (PTG.129.87)
‘He didn’t know that cassava grew in the ground (laugh)...he thought that cassava grew on trees.’
- (16) a. Yo **supongo** que no **sea**_[SUBJ] fácil administrar. (SP.073.681)
‘I suppose it’s not easy to administer.’
- b. **Supongo** que en esas épocas/él **estaba haciendo**_[IND] su tesis de doctorado. (SP.036.129)
‘I suppose that at that time, he was doing his doctoral thesis.’

Third, we might expect that the same verb should trigger the subjunctive across the board, but this does not hold cross-linguistically either. For example, verbs meaning ‘fear’ yield decidedly different subjunctive rates in the four languages: while IT *avere paura* and SP *temer* (though admittedly rare in speech) are categorically associated with the subjunctive, the rate for FR *avoir peur* is much more modest, at approximately two-thirds, and PTG *ter medo* only triggers a subjunctive in about one third of cases (17).

- (17) a. Si però **avevano paura** che **diventasse**_[SUBJ] proprio completamente cieca. (IT.442.029)
‘Yeah, but they were afraid that she would actually become completely blind.’
- b. Porque o que eu **tenho medo**... que **acontece**_[IND] alguma coisa. (PTG.132.92)
‘Because what I fear [is] that something will happen.’
- c. Lo que **temía** el doctor que/se le **paralizara**_[SUBJ] el intestino. (SP.067.407)
‘What the doctor feared [was] that his intestine would get paralysed.’
- d. J’**ai peur** que ça **vient**_[IND] contre nous autres. (FR.041.1960)
‘I’m afraid that it’ll go against us.’

Likewise, the same context should yield comparable subjunctive rates across sister languages. But, as illustrated in Table 7 with verbs meaning ‘believe’, subjunctive shows up only in the affirmative in Portuguese, is all but restricted to the negative in French and Spanish, while in Italian polarity has no effect.

Table 7: Rate of subjunctive under governors meaning ‘believe’ by language

LANGUAGE	GOVERNOR	AFFIRMATIVE		NEGATIVE	
		%	N	%	N
Portuguese	<i>crer</i>	13	2/15	–	– ¹⁶
French	<i>croire</i>	–	–	13	3/24
Italian	<i>credere</i>	79	79/100	75	9/12
Spanish	<i>creer</i>	1	4/291	77	17/22

And finally, synonyms or quasi-synonyms should feature the same rate of subjunctive. Synonymous governors are unfortunately too rare to allow for meaningful comparisons, but the data in Table 8 nonetheless suggest that, given more data, this hypothesis would be disconfirmed as well.

Table 8: Rate of subjunctive under (quasi-)synonymous governors by language

LANGUAGE	GOVERNOR	GLOSS	%	N
Portuguese	<i>acreditar</i>	‘believe’	31	22/70
	<i>crer</i>	‘believe’	13	2/15
French	<i>se rappeler</i>	‘remember’	20	1/5
	<i>se souvenir</i>	‘remember’	100	3/3
Italian	<i>essere convinto</i>	‘be convinced’	20	1/5
	<i>essere sicuro</i>	‘be sure’	67	4/6

7.4 Summary

Summarizing, instead of consistent, categorical subjunctive selection, we observe variability at every level, both within and across languages. We noted above that variability is sometimes acknowledged in the literature, but it is ascribed to semantic differences. In this section we tested this possibility explicitly, and failed to confirm it for three of the languages. With respect to the criterion of desemanticization, then, we would place them at roughly the same point on the cline. Spanish remains more conservative in this respect. Note, however, that although subjunctive morphology

¹⁶ The dash indicates that no subjunctives occurred under governors *crer*_{negative} and *croire*_{affirmative}.

does seem to be consistent with irrealis meaning on the criteria we have examined, variability persists here as well.

8 Lexical routinization

If semantics makes little or no contribution to variant choice for most of the languages, how should we interpret the observed rate differences, both overall cross-linguistically and from governor to governor within each language? The disparate behaviour reported above suggests that other factors may be operative. Accordingly, in this section, we focus on the second major determinant of variant choice in the literature: the governor. We have already seen that the general prediction that “subjunctive-selecting” governors should co-occur categorically with a subjunctive holds only sporadically. As we will confirm below, subjunctive is categorical for only four of 15 governors in Spanish, two of 12 in Italian, and none of eight and 14 in Portuguese and French, respectively (Figure 5). This suggests that the lexical identity of the governor contributes to subjunctive selection independent of any meaning to be expressed. To confirm this hypothesis, we adopt Poplack/Lealess/Dion’s (2013) tripartite analysis of the role of the governor, involving, as independent measures:

- 1) the overall rate of subjunctive associated with each governor
- 2) the proportion each governor represents of the entire governor pool
- 3) the amount of subjunctive morphology accounted for by each.

The higher the score on each of these measures, the more lexically routinized and the less productive – i.e. the more grammaticalized – mood selection may be said to be in the language in question.

8.1 Rate of subjunctive associated with particular governors (RATE SUB_j)

We first note (Figure 5) that in all four languages, individual governors trigger the subjunctive at dramatically different rates, ranging from very low to very high, with few in the middle. Exemplifying with Spanish, the language closest to the Latin ancestor by the measures of semantic import considered thus far, we see that 6/15 frequent governors display subjunctive rates ranging from 85 % to 100 %, while those for another five are below 10 %. The same may be said, to varying extents, of the other languages.

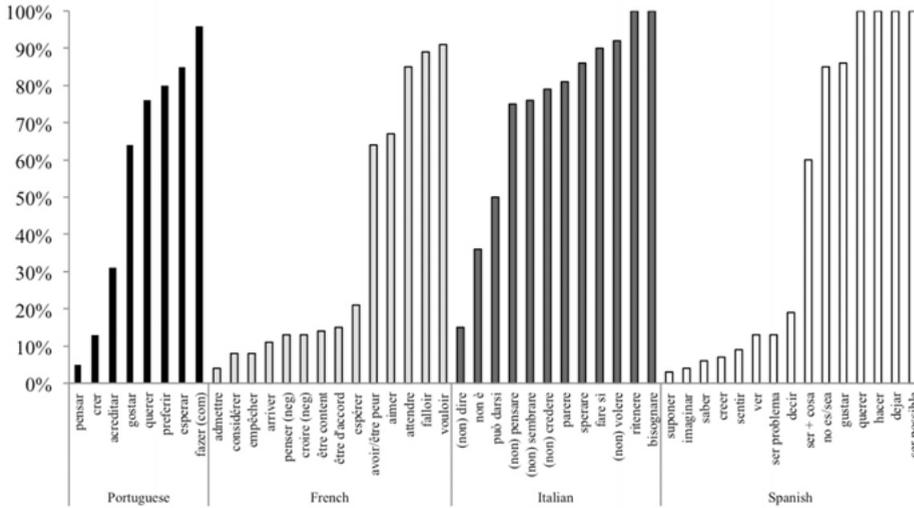


Figure 5: Rate of subjunctive across frequent (10+ occurrences) governors by language (RATE SUB)

Note that although these are all “subjunctive-selecting” governors, some trigger it (nearly) all the time; others rarely so. Such lexical bias does not leave much room for conditioning of a semantic or structural nature, beyond that embodied in the governing verb itself. This confirms that the identity of the governor is a primordial factor in determining mood selection in the embedded clause.

8.2 Proportion of the data accounted for by particular governors (% gov)

Another crucial, though rarely documented, fact is that governors not only feature idiosyncratic subjunctive rates, they also turn out to have idiosyncratic likelihoods of occurring altogether. Figure 6 shows that in each language, just a few of them make up a disproportionately large part of the entire governor pool, and the rest are very rare.

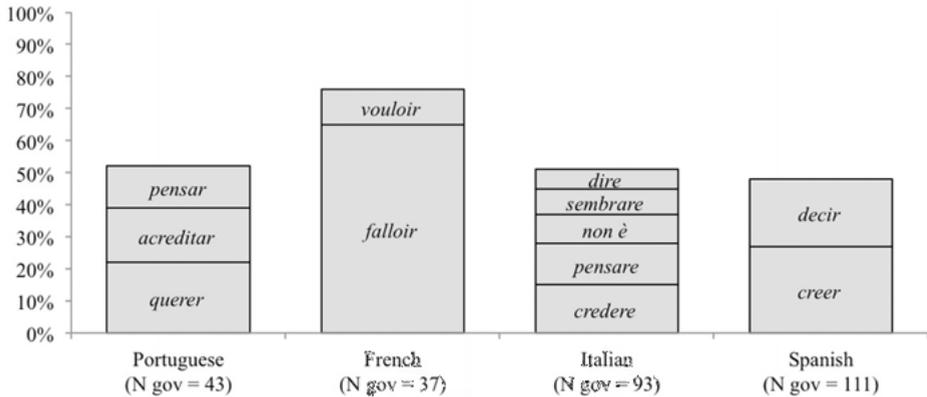


Figure 6: Proportion frequent (10+ occurrences) governors represent of the governor pool by language (% gov)

For example, although 93 Italian governors selected a subjunctive at least once, a full half of the governor pool is made up by only five. Such disproportionate distributions are even more glaring in Portuguese – of 43 governors, a single one (*querer* ‘want’) accounts on its own for a fifth of the pool, rising to half when the top three are considered. The two most frequent governors of the 111 in Spanish account for half the data! But the situation is most extreme in French, where only *one* of the 37 governors (*falloir* ‘be necessary’) represents nearly two thirds of the governor pool, and the top two account for three quarters. Examples of subjunctives under such frequent governors are given in (18).

- (18) a. Ma veramente, **sembra** c’**abbia**_[SUBJ] quattordici, quindic’anni. (IT.072.227)
 ‘Seriously, it seems like she is fourteen, fifteen years old.’
- b. Ele **queria** que ela **usasse**_[SUBJ] saias... LONGAS... sabe? (PTG.042.150)
 ‘He wanted her to wear long skirts... you know?’
- c. Aunque sean buenos/yo no **digo** que que que **tengan**_[SUBJ] que ser malos. (SP.007.501)
 ‘Even if they are good, I’m not saying that, that, that they have to be bad.’
- d. Moi je **veux** pas mon appartement **ait**_[SUBJ] un méchant nom, tu sais? (FR.022.140)
 ‘I don’t want my apartment to have a bad name, you know?’

Thus, despite a reasonable number of potential governors, a small cohort is disproportionately frequent. And these again differ cross-linguistically, as revealed by comparing the verbs of necessity in Table 9: *falloir* accounts for two thirds of the

French governors, but semantically equivalent *bisognare* represents only 5% of Italian data, and Portuguese *precisar* and the Spanish equivalents only occurred a couple of times each. And the same could be said about many other governors.

Table 9: Proportion that governors expressing ‘necessity’ represent of the governor pool by language (% GOV)

LANGUAGE	GOVERNOR	%	N
Portuguese	<i>precisar</i>	1	3/424
French	<i>falloir</i>	65	1669/2569
Italian	<i>bisognare</i>	5	40/768
Spanish	<i>necesitar/es necesario</i>	0	4/1153

8.3 Dispersion of subjunctive morphology across governors (% SUBJ MORPHO)

A third measure of the lexical contribution to variant choice calculates the proportion of all subjunctive morphology accounted for by each governor (% SUBJ MORPHO). The idiosyncratic subjunctive rates associated with different verbs, coupled with their disproportionate distributions, crucially affect this amount. Figure 7 illustrates.

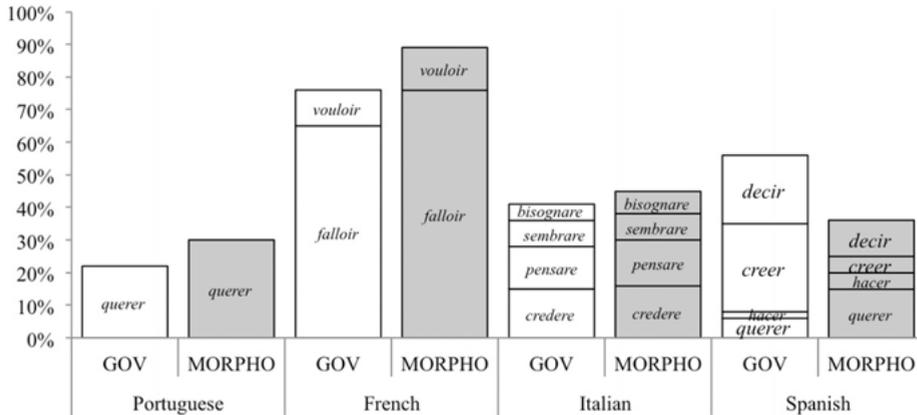


Figure 7: Dispersion of subjunctive morphology across governors by language, as measured by proportion frequent governors represent of the governor pool (% GOV) and proportion of subjunctive morphology they account for (% MORPHO)

Nowhere are these disproportionate distributions more dramatic than in French: because *falloir* is so frequent and so highly associated with subjunctive, it alone is responsible for more than three quarters of all subjunctive morphology in the corpus! The addition of *vouloir* ‘want’ brings the count to 89%. Subjunctive morphology is also restricted in Portuguese, albeit to a much lesser extent: *querer* ‘want’ makes up nearly a quarter of the governors, but because it also favours subjunctive, it accounts for more of the subjunctive morphology than its frequency would warrant. In Italian, in contrast, due to generally high subjunctive rates and fewer disproportionate distributions, the dispersion of subjunctive morphology across governors is basically as expected from the proportion each governor represents overall. Spanish presents a different profile, as evidenced by the reversal of the relative height of its columns in Figure 7. While two of the frequent Spanish verbs (*querer* ‘want’, *hacer* ‘make-cause’) favour the subjunctive and consequently account for a larger proportion of subjunctive morphology than their overall preponderance in the governor pool would predict, the two most frequent governors (*creer* ‘believe’ and *decir* ‘say’) strongly *disfavour* it. Thus although these verbs constitute a large proportion of the *governor pool*, they represent a much lesser portion of subjunctive morphology, increasing the dispersion of subjunctive morphology across governors. (Indeed, the frequency of these governors and their scant associations with subjunctive together go a long way towards explaining the low overall rate of subjunctive in Spanish depicted in Figure 1.)

It is now clear that the combination of governor frequency and idiosyncratic variant associations crucially affect the way subjunctive morphology is dispersed across governors. But we also note that the number of *embedded* verbs that actually receive subjunctive morphology is extremely limited. Any embedded verb occurring in a subjunctive-selecting context is of course eligible to take the subjunctive. And there were in fact many of them in all of the languages. But due to the same kinds of disproportions we saw for the governors, most subjunctive morphology is concentrated in just a few (Figure 8). In both French and Italian, more than half of all occurrences of the subjunctive are with only three verbs. Even in Portuguese and Spanish, four or five verbs account for a full third of subjunctive morphology. Most are irregular, a further indication of ritualization (Haiman 1994; Poplack 2001, 413). Examples of subjunctive selection with such favourable embedded verbs are given in (19) below. Note that despite some overlap, as with the governors, these are not necessarily the same cross-linguistically. The fact that the subjunctive mostly manifests on only a handful of embedded verbs (under a restricted set of governors) weakens the inference that it is productive in these languages.

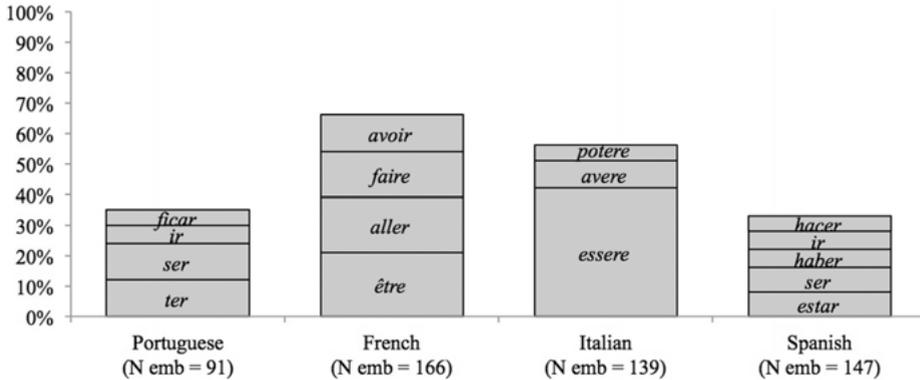


Figure 8: Distribution of subjunctive morphology (% SUBJ MORPHO) across embedded verbs

- (19) a. Non mi risulta che Berlusconi **sia**_[SUBJ *essere*] ancora il capo del governo. (IT.562.033)
 ‘It doesn’t seem to me that Berlusconi is still the head of the government.’
- b. Eles **queriam** que eu **fosse**_[SUBJ *ir*] com eles no velório. (PTG.105.134)
 ‘They wanted me to go with them to the funeral.’
- c. **No es** que **haya**_[SUBJ *haber*] agua ahí. (SP.001.487)
 ‘It’s not that there is water there.’
- d. Bien ça, **fallait** tu **fasses**_[SUBJ *faire*] ton huit heures par jour. (FR.043.924)
 ‘Well there you had to do your eight hours a day.’

9 Summary

Table 10 summarizes our findings with respect to the relative positioning of the Romance languages according to the grammaticalization measures we have operationalized and tested. Recall that the implication behind such positioning is distance from Latin, represented here, as in the grammaticalization clines in the literature, in its idealized (and possibly fictionalized) state.

Table 10: Relative positioning of languages according to grammaticalization measures

Measure	{Latin}	Most conservative > Most advanced			
Semantic contribution	Yes	SPN In part	PTG No IT No FR No		
Overall subj rate	100 %	FR 76 %	IT 71 %	PTG 55 %	SP 38 %
Dispersion of data across govns	Yes	IT Top gov = 15 % Top 5 = 50 %	PTG Top gov = 22 % Top 3 = 50 %	SP Top gov = 27 % Top 2 = 48 %	FR Top gov = 65 % Top 2 = 89 %
Average subj rate by gov	100 %	IT 83 % SP 83 %		PTG 78 %	FR 63 %
Median subj rate by gov	100 %	IT 100 % SP 100 % PTG 100 %			FR 67 %
N govns	Many	SP 111/~410K wds IT 93/~300K wds		PTG 43/~750K wds	FR 37/~2.5M wds
Dispersion of subj morpho across govns	Yes	SP Top 5 = 38 %	IT Top 5 = 50 %	PTG Top 3 = 50 %	FR Top 1 = 76 %
Dispersion of subj morpho across embedded verbs	Yes	SP Top 4 = 28 %	PTG Top 4 = 35 %	IT Top 1 = 40 %; Top 3 = 56 % FR Top 3 = 54 %; Top 4 = 67 %	

To the extent that the subjunctive has advanced on the grammaticalization path, its presumed semantic contribution should no longer be determining its selection. In fact, our results show that desemanticization has gone to completion in Italian, Portuguese and French. We can infer this from the fact that the factors operationalized to capture semantic effects are not operative (sections 7.1 and 7.2). The identity of the governors does not predict mood consistently either, whether within or across these languages (section 7.3). Based on these same measures, Spanish shows up as more conservative.

Even if use of the subjunctive is not semantically motivated, it may still be productive in other ways, for example as a marker of subordination. How can this be gauged? Overall rate is often recruited as a measure of productivity. Assuming an earlier idealized stage of categorical subjunctive realization, rate differences would place French and Italian closest to the source, with Portuguese far removed and Spanish even more so (Figure 2), contra standard characterizations.

But as we have been at pains to demonstrate, rates can be deceptive, here because of the strong lexical bias embodied in the governor and in the proportion that each

one represents overall. We have seen that rates differ dramatically across individual governors in all four languages (Figure 5), and that in each one, a handful accounts for at least half of the governor pool (% gov; Figure 6). In this respect, French shows the most dramatic restriction. Because the disproportionately frequent French governor *falloir* is also favourable to selection of the subjunctive, while the two most-frequent Spanish governors strongly *disfavour* it, overall subjunctive rates for these two languages are most misleading.

The rate measure considers every token equally. In the case at hand, this is problematic, because some governors account for disproportionate amounts of the data (Figure 6) while also featuring idiosyncratic associations with the subjunctive (Figure 5). We can mitigate this problem by assigning equal weight to each governor regardless of the amount of data it represents. But the *average rate* thus obtained is silent on the dispersion of subjunctive morphology across governors. Does an average rate of 30% mean that each governor hovers around 30%, or is it the product of amalgamating some governors with very low rates with others featuring very high ones? The *median rate*, that of the governor occupying the mid-point of the range, clarifies how rates are distributed across governors. Table 10 shows that three of the four languages have median rates of 100%: more than half of their governors co-occur with subjunctive categorically (due in turn to the preponderance in them of *hapax legomena* whose sole occurrence happened to be in the subjunctive). When we control for disproportions among governors in frequency of occurrence and rates of subjunctive by averaging governor rates and calculating the median, we discover that it is again French that is most advanced, while Spanish is far more conservative than overall rates would have suggested.

We also tested the productivity of the subjunctive in terms of the number of governors that trigger it (which we construe as a measure of *type frequency* (Bybee/Torres Cacoulios 2009, 207–212)). At 111 and 93, Spanish and Italian again appear closest to the presumed source. They display more than twice as many governors as Portuguese, although the corpora from which they were drawn are less than half the size. Least productive is French: despite more than three times the amount of data, far fewer verbs governed a subjunctive even once. The fact that such a large proportion of all subjunctive morphology can be accounted for by such a small cohort of governors in all four languages (Figure 7) also militates against productivity, but here again, French is most advanced and Spanish most conservative.

Independently of this, the cohort of *embedded* verbs carrying subjunctive morphology is extremely restricted in both French and Italian as well (Figure 8). Although some Spanish and Portuguese embedded verbs are also disproportionately frequent, they are the most productive on this measure.

Summarizing, in at least one respect our results confirm previous proposals: the French subjunctive *is* in fact the most advanced on the cline of grammaticalization, despite featuring the *highest* rate of subjunctive of any of the languages studied. The positions of the other languages are reversed with respect to the received wisdom: it is

Spanish that turns out to be most conservative, even though its low overall rate suggested the opposite. This points up how misleading reliance on simple rates of occurrence can be as a measure of grammaticalization and emphasizes the primacy of *conditioning* of variant selection, which has identified lexical routinization and structural conventionalization as the processes at work.

We stress, however, that their relative positions on the cline should not obscure the fact that all of these languages are quite distant from the presumed source, meaning that they are *all* highly grammaticalized, including Spanish, albeit to a lesser extent. In terms of *desemanticization*, three of the languages have reached completion, as emerged from the finding that factors operationalized to capture semantic effects did not constrain variant selection. In this respect, then, they are located at the extremity of the cline (Figure 9). The subjunctive does seem to be meaningful in Spanish, at least to some degree, but because it nonetheless occurs *variably* in purportedly irrealis-meaning-bearing contexts, it too is remote from the idealized earlier state. In any event, its use is not solely semantically motivated – as with its sisters, mood choice is simultaneously subject to lexical and structural constraints.



Figure 9: Desemanticization cline

As a counterpart to desemanticization, what has developed in all these languages is *lexical bias*, although the identity of the items recruited to act as governors, their preponderance in their respective languages, and the rates of subjunctive associated with each were all seen to differ substantially from one language to the next.

The process that is still ongoing is *conventionalization*, which we have defined as the extent to which the subjunctive is associated to a given structurally-defined context. On this measure, with near-categorical subjunctive selection under only a few governors and embedded verbs, French is indisputably the most advanced. Italian is lagging behind, as evidenced by the distribution of the subjunctive over a much wider array of governors, even if not to express different meanings. The three most desemanticized languages are clearly situated at the far pole of the structural conventionalization path, but Spanish is a willing participant as well. This is again evidenced by the lexical idiosyncrasies all four languages display: potential governors are either highly or rarely associated with the subjunctive, with the most variability occurring *amongst* governors and not within. Moreover, rather than choose freely from the pool, speakers of each language over-use just a few governors, such that the task of subjunctive selection is restricted to only a small – and again, distinct! –

cohort. In addition, subjunctive morphology is further restricted to a few *embedded* verbs, even though every verb in the language is eligible to carry it.

What about Spanish? Classifying complement-clause subjunctives in the *Corpus sociolingüístico de la ciudad de México* studied here into those dictated by the linguistic context (e.g. in volitives, or with governors such as *gustar* ‘like’) and ones where it varies with the indicative, Lastra/Martín Butragueño (2012, 121) report that the large majority fall into the first category. This bolsters our finding that the lexical and structural features of the context are powerful determinants of subjunctive selection. On the one hand, Spanish is the language in which the subjunctive is least variable under individual governors: more than one third (11/31) of moderately frequent governors display a subjunctive rate of 100%, close to one third (9/31) feature subjunctive rates under 20%, while fewer than a quarter (7/31) show robust variability, with subjunctive rates between 20% and 80% (see also Figure 5 for more frequent governors). On the other hand, Spanish is most sensitive to matrix clause structure (Table 3 and Figure 3). While subjunctive “triggers” such as negation are often taken to reflect a semantic contribution (questioning the truth value of the subordinate clause proposition; e.g. Real Academia Española 2010, 480), they are also undeniably structural. For example, it would be difficult to prove that the subjunctive under the negated governor in (20) qualifies the truth value of the proposition any more than the indicative does under the same governor in the affirmative.

- (20) Yo no **pensé** que **fuéramos**_[SUBJ] a salir/¿eh?/yo **pensé** que **íbamos**_[IND] a **estar** en la casa eh. (SP.056.1081)
 ‘I didn’t think that we were going to go out, eh? I thought we were going to stay home, eh.’

Spanish is also more sensitive than the other languages to governor tense: subjunctive is highly favoured in the complement clause when the matrix verb is itself in the subjunctive or the conditional (82%, N = 28). Thus, while Spanish clearly lags behind the three other languages on the scale of desemanticization, its advanced structural conventionalization would seem to place it on a par with them, as schematized in Figure 10.



Figure 10: Conventionalization cline

10 Conclusion

This study contributes to recent work attempting to position the Romance languages along the cline of grammaticalization with usage data on a key diagnostic: the choice between indicative and subjunctive in embedded complement clauses. While mood selection is widely assumed to be semantically motivated, typological studies adopting a diachronic perspective suggest that subjunctives grammaticalize into concomitants of subordination, entailing “vacuous” variability and lower rates of subjunctive morphology en route to eventual loss. We addressed these alternative perspectives via two major parameters of advancing grammaticalization: desemanticization and conventionalization.

Results show robust variability, not only in overall rates of subjunctive selection across languages, but also within them, since matrix verbs display a range of subjunctive rates. Moreover, contrary to received wisdom, semantic considerations play a minor role, if any, in variant choice. With the arguable exception of Spanish, subjunctive selection is constrained neither by contextual elements consistent with its oft-ascribed meanings nor by semantic classes of governors harmonic with such meanings. On this basis, we were led to place Italian, French and Portuguese farther along the desemanticization path than Spanish.

But in all four languages, lexical bias was found to be the major predictor of subjunctive selection, though the same governor (whether determined etymologically or as translation equivalents) does not display consistent associations cross-linguistically. A variety of other measures designed to gauge the productivity of the subjunctive only bolstered this result: in each language, a handful of governors accounts for a large proportion both of all governors and of all subjunctive morphology. In addition, the cohort of embedded verbs featuring subjunctive morphology, though theoretically unrestricted, turned out to be limited as well. With near categorical subjunctive selection under the smallest number of governors and embedded verbs, the subjunctive is indisputably the least productive in French. But the usage facts militate against productivity in *all four* languages, with potential governors either highly or rarely associated with subjunctive, and more variability occurring *among* governors than within. Importantly, these associations are *community*-specific and not a function of meaning or inheritance from the common ancestor.

The conservative positioning of Spanish with respect to the other languages on the cline of desemanticization should not obscure the fact that by these measures, it too displays structural conventionalization: its associations with elements of the linguistic context limit semantic motivations for subjunctive selection. We conclude that, although situated at different points on the cline of grammaticalization, all four languages are quite distant from the presumed source, and are all well embarked on the overriding processes of lexical routinization and structural conventionalization. The former is language-particular, with different governors displaying idiosyncratic

associations with the subjunctive in different languages. Along the latter path, however, the languages differ merely by degree.

These insights emerge thanks to cross-linguistic comparison which relies on the data of variability inherent in spoken language. Such findings diverge in a number of ways from previous accounts. We suggest that this is because, in contrast to them, we focused here on speakers' actual spontaneous *usage* of the subjunctive. This forced us to confront, rather than evade, the facts of inherent variability, and encouraged us to go beyond potentially misleading rates of occurrence to seek the explanatory factors embodied in variant conditioning. Only in this way could we debunk idealizations about mood choice and lay bare the fundamental role of governor frequency and idiosyncratic associations with subjunctive morphology. This is what enabled us to evaluate its actual productivity in cross-linguistic perspective.

Acknowledgements: The research on which this article is based was generously supported by grants to Poplack from the Social Science and Humanities Research Council of Canada. Poplack holds the Canada Research Chair (I) in Linguistics. Berlinck acknowledges support from FAPESP (2014/02414-0) and CNPq (311294/2013-8). We thank audiences at the Canadian Linguistics Association (May 2015), New Ways of Analyzing Variation 44 (October 2015), Linguistic Symposium on Romance Languages 46 (April 2016) and Sociolinguistics Symposium 21 (June 2016) for useful feedback on earlier iterations of this work. We are particularly grateful to Bernd Heine, Christian Lehmann and Jan Juhl Lindschouw, as well as to the editors, whose perspicacious comments were so instrumental to our thinking on these issues (though they would not necessarily agree with all the views expressed here).

11 Bibliography

- Bello, Andrés (1847), *Gramática de la lengua castellana destinada al uso de los americanos*, in: *Obras completas. Tomo Cuarto*, Caracas, La Casa de Bello.
- Bolinger, Dwight (1974), *One Subjunctive or Two?*, *Hispania* 57, 462–472.
- Bybee, Joan/Perkins, Revere/Pagliuca, William (1994), *The Evolution of Grammar: Tense, Aspect, and Modality in the Languages of the World*, Chicago, University of Chicago Press.
- Bybee, Joan/Torres Cacoullos, Rena (2009), *The Role of Prefabs in Grammaticalization: How the Particular and the General Interact in Language Change*, in: Roberta L. Corrigan et al. (edd.), *Formulaic Language*, vol. 1: *Distribution and Historical Change*, Amsterdam/Philadelphia, Benjamins, 187–217.
- Carlier, Anne/De Mulder, Walter/Lamiroy, Béatrice (2012a), *Introduction. The Pace of Grammaticalization in a Typological Perspective*, *Folia linguistica* 46(2), 287–302.
- Carlier, Anne/De Mulder, Walter/Lamiroy, Béatrice (edd.) (2012b), *The Pace of Grammaticalization in Romance*, Special Issue, *Folia linguistica* 46(2).
- Chafe, Wallace (1995), *The Realis-Irrealis Distinction in Caddo, the Northern Iroquoian Languages, and English*, in: Joan Bybee/Suzanne Fleischman (edd.), *Modality in Grammar and Discourse*, Amsterdam/Philadelphia, Benjamins, 349–366.

- Cresti, Emanuela/Moneglia, Massimo (edd.) (2005), *C-ORAL-ROM. Integrated Reference Corpora for Spoken Romance Languages*, Amsterdam/Philadelphia, Benjamins.
- Cunha, Celso/Cintra, Lindley (1985), *Nova gramática do português contemporâneo*, Rio de Janeiro, Nova Fronteira.
- De Mulder, Walter/Lamiroy, Béatrice (2012), *Gradualness of Grammaticalization in Romance. The Position of French, Spanish and Italian*, in: Kristin Davidse et al. (edd.), *Grammaticalization and Language Change: New Reflections*, Amsterdam/Philadelphia, Benjamins, 199–226.
- Digesto, Salvatore (in progress), *Verum a fontibus haurire. Variationist Analysis of the Subjunctive from Latin to Italian*, doctoral thesis, Ottawa, University of Ottawa.
- Givón, Talmy (1978), *Negation in Language: Pragmatics, Function, Ontology*, in: Peter Cole (ed.), *Syntax and Semantics*, vol. 9: *Pragmatics*, New York, Academic Press, 69–112.
- Givón, Talmy (1994), *Irrealis and the Subjunctive*, *Studies in Language* 18, 265–337.
- Gonçalves, Sebastião Carlos Leite (2003), *Banco de dados Iboruna: Amostras eletrônicas do português falado no interior paulista*, <http://www.iboruna.ibilce.unesp.br> (last access 15.02.2018).
- Haiman, John (1994), *Ritualization and the Development of Language*, in: William Pagliuca (ed.), *Perspectives on Grammaticalization*, Amsterdam/Philadelphia, Benjamins, 3–28.
- Harris, Martin (1974), *The Subjunctive Mood as a Changing Category in Romance*, in: John M. Anderson/Charles Jones (edd.), *Historical Linguistics II: Theory and Description in Phonology (Proceedings of the First International Conference on Historical Linguistics, Edinburgh, 2–7 September, 1973)*, Amsterdam, North-Holland Publishing Company, 169–188.
- Harris, Martin (1978), *The Evolution of French Syntax: A Comparative Approach*, London/New York, Longman.
- Haspelmath, Martin (1998), *Does Grammaticalization Need Reanalysis?*, *Studies in Language* 22, 315–351.
- Haspelmath, Martin (2003), *The Geometry of Grammatical Meaning: Semantic Maps and Cross-Linguistic Comparison*, in: Michael Tomasello (ed.), *The New Psychology of Language*, vol. 2, Mahwah/New Jersey, Lawrence Erlbaum Associates, 211–242.
- Heine, Bernd/Reh, Mechthild (1984), *Grammaticalization and Reanalysis in African Languages*, Hamburg, Buske.
- Kastronic, Laura (2016), *A Comparative Variationist Approach to Morphosyntactic Variation in Contemporary Hexagonal and Quebec French*, doctoral thesis, Ottawa, University of Ottawa.
- Kragh, Kirsten Jeppesen (2010), *Le Remplacement de l'imparfait du subjonctif par le présent du subjonctif considéré dans une perspective de grammaticalisation (Études romanes 60)*, Copenhagen, Museum Tusulanum Press.
- La Touche, Nicolas de (1730), *L'Art de bien parler françois, qui comprend tout ce qui regarde la grammaire & les façons de parler douteuses*, Amsterdam, Wetsteins & Smith.
- Labov, William (1972), *Sociolinguistic Patterns*, Philadelphia, University of Pennsylvania Press.
- Labov, William (1984), *Field Methods of the Project on Linguistic Change and Variation*, in: John Baugh/Joel Sherzer (edd.), *Language in Use: Readings in Sociolinguistics*, Englewood Cliffs, Prentice-Hall, 28–54.
- Lamiroy, Béatrice/De Mulder, Walter (2011), *Degrees of Grammaticalization across Languages*, in: Bernd Heine/Heiko Narrog (edd.), *The Oxford Handbook of Grammaticalization*, Oxford, Oxford University Press, 302–307.
- Lastra, Yolanda/Martín Butragueño, Pedro (2012), *Aproximación al uso del modo subjuntivo en el corpus sociolingüístico de la ciudad de México*, *Boletín de filología* 47(2), 101–131.
- Lehmann, Christian (²1995, ¹1982), *Thoughts on Grammaticalization*, München, Lincom.
- Lindschouw, Jan (2011), *Étude des modes dans le système concessif en français du 16e au 20e siècle et en espagnol moderne (Études romanes 61)*, Copenhagen, Museum Tusulanum Press.

- Loengarov, Alexander (2006), *L'Alternance indicatif/subjonctif dans les langues romanes. Motivation sémantico-pragmatique et grammaticalisation*, doctoral thesis, Leuven, Katholieke Universiteit Leuven.
- Magni, Elisabetta (2010), *Mood and Modality*, in: Philip Baldi/Pierluigi Cuzzolin (edd.), *New Perspectives on Historical Latin Syntax*, vol. 2, Berlin/Boston, De Gruyter, 193–275.
- Martín Butragueño, Pedro/Lastra, Yolanda (edd.) (2011–2015), *Corpus sociolingüístico de la ciudad de México* (CSCM), México, El Colegio de México, <http://lef.colmex.mx/Sociolingüística/CSCM/Corpus.htm> (last access 15.02.2018).
- Mateus, Helena Mira (1983), *Gramática da língua portuguesa: Elementos para a descrição da estrutura, funcionamento e uso do português actual*, Coimbra, Livraria Almedina.
- Poplack, Shana (1989), *The Care and Handling of a Mega-Corpus*, in: Ralph Fasold/Deborah Schiffrin (edd.), *Language Change and Variation*, Amsterdam/Philadelphia, Benjamins, 411–451.
- Poplack, Shana (1990), *Prescription, intuition et usage: Le Subjonctif français et la variabilité inhérente*, *Langage et société* 54, 5–33.
- Poplack, Shana (1992), *The Inherent Variability of the French Subjunctive*, in: Christine Laeuffer/Terrell Morgan (edd.), *Theoretical Analyses in Romance Linguistics*, Amsterdam/Philadelphia, Benjamins, 235–263.
- Poplack, Shana (2001), *Variability, Frequency and Productivity in the Irrealis Domain of French*, in: Joan Bybee/Paul Hopper (edd.), *Frequency and the Emergence of Linguistic Structure*, Amsterdam/Philadelphia, Benjamins, 405–428.
- Poplack, Shana (2011), *Grammaticalization and Linguistic Variation*, in: Bernd Heine/Heiko Narrog (edd.), *The Oxford Handbook of Grammaticalization*, Oxford, Oxford University Press, 209–224.
- Poplack, Shana/Lealess, Allison V./Dion, Nathalie (2013), *The Evolving Grammar of the French Subjunctive*, *Probus* 25, 139–193.
- Poplack, Shana/Tagliamonte, Sali (2001), *African American English in the Diaspora*, Malden, MA, Blackwell.
- Poplack, Shana/Turpin, Danielle (1999), *Does the FUTUR Have a Future in (Canadian) French?*, *Probus* 11, 133–164.
- Poplack, Shana, et al. (2015), *Searching for Standard French: The Construction and Mining of the Recueil historique des grammaires du français*, *Journal of Historical Sociolinguistics* 1, 13–55.
- Real Academia Española (1906), *Gramática de la lengua castellana. Nueva edición*, Madrid, Perlado, Páez y Compañía.
- Real Academia Española y Asociación de Academias de la Lengua Española (2010), *Nueva gramática de la lengua española. Manual*, Madrid, España.
- Ribeiro, Ernesto Carneiro (1955, 1890), *Serões grammaticaes ou nova grammatica portugueza*, Salvador, Livraria Progresso Editora.
- Sankoff, David (1988), *Sociolinguistics and Syntactic Variation*, in: Frederick Newmeyer (ed.), *Linguistics: The Cambridge Survey*, Cambridge, Cambridge University Press, 140–161.
- Silva-Corvalán, Carmen (1994), *Language Contact and Change. Spanish in Los Angeles*, Oxford, Clarendon Press.
- Sobrero, Alberto A./Beccaria, Gian Luigi/Marazzini, Claudio (1987), *Lingua italiana: La pratica e la grammatica: manuale di educazione linguistica*, Torino, Società Editrice Internazionale.
- Tartaglione, Roberto (2008), *Grammatica italiana. Regole ed esempi d'uso*, Firenze, Alma Edizioni.
- Thompson, Sandra (1998), *A Discourse Explanation for the Cross-Linguistic Differences in the Grammar of Incorporation and Negation*, in: Anna Siewierska/Jae Jung Song (edd.), *Case, Typology and Grammar: In Honor of Barry J. Blake*, Amsterdam/Philadelphia, Benjamins, 309–341.

Torres Cacoullos, Rena (2012), *Grammaticalization through Inherent Variability: The Development of a Progressive in Spanish*, *Studies in Language* 36, 73–122.

Wailly, Noël François de (1768), *Principes généraux et particuliers de la langue française, confirmés par des exemples choisis, instructifs, agréables & tirés des bons auteurs*, Paris, Barnou.