Aspects of Tenses, Modality, and Evidentiality

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CHAPTER 1

Introduction

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If there's a domain in linguistics which complexity calls for ever further research, it's clearly that of tense, aspect, modality and evidentiality, often referred to as 'TAME'. The reason for which these domains of investigation have been connected so tightly as to deserve a common label is that their actual intertwining is so dense that one can hardly measure their effects purely individually, without regard to the other notions of the spectrum. Scholars differ in numerous respects as for what comes first, or is primary with regard to the other domains, and languages obviously differ in this respect across types and evolution over time. What is more, the definitions, and the respective borderlines, of these domains themselves is subject to debates. When a tense plays a role in inducing modal interpretations, as with epistemic futures for example (see Escandell-Vidal's chapter), shall we consider the modality as a result of a time-bounded semantic representation combined with contextual cues, or shall we consider the type of Future tense essentially modal with various applications from less to strong modality? And when modality is expressed, by whichever means, a suspicion of inferential evidentiality is legitimate; *must*, but certainly also epistemic Futures at least in many of its forms, arguably communicates a non-demonstrative inference as source of the knowledge. But modality is also connected to aspect in fascinating ways that have been abundantly documented (examples of this connection are given by *can*-sentences which read as sporadic aspect sentences). In a number of languages, the disjunction between *aktionsart* and grammatical aspectual categories seems blurred in such a way that the two dimensions have sometimes been equated with one another, whereas in others, the division of tasks between them is clearer. These domains are felt central to linguistics to a number of scholars also because TAME connects inevitably with other classical areas of linguistic investigation: deixis and anaphora, quantification, connectives; moreover, as the domain of TAME crosses the borderline between sentence and discourse, it brings us a step closer to broader pragmatic concerns relating not only to the cognitive processes at work in comprehension at large but also to text genres.

On the other hand, despite their imbrications, tense, aspect, modality and evidentiality remain—needless to say—separate theoretical entities; other-

wise the questions mentioned above would be nonsensical. There are enough linguistic items that clearly belong to one dimension for these domains to be constituted for their own sake. And when, as is often the case, some phenomenon branch to other aspects of language, when one is not so sure whether it is about time or modality, or about evidentiality, key players in these domains remain and keep us from melting together these different aspects without caution. Still, modality and evidentiality have particularly close connections with one another: the source of information bears an epistemic dimension, and epistemic meanings have, arguably, an evidential dimension.

Keeping this in mind, we divided this volume in three general parts. The first one is dedicated to tense, the second focuses on aspect, and the third gathers papers on modality and evidentiality. Nonetheless, inevitably, papers in the volume pick up notions from other domains and often revolve around the four dimensions.

The literature on TAME is overwhelming not only across the disciplines of linguistics, i.e. syntax, semantics and pragmatics, but also across schools of thought and in crosslinguistic typological literature. What is more, TAME is of fascinating interest to neighbouring disciplines, typically in philosophy of language, which traditionally provides crucial concepts in semantics: 'possible worlds', theories of indexicality and of the structure of events, to name but a few. With the continuously expanding knowledge in cognitive science, conceptions of time, of events structure, of possibility and necessity, and of the source of knowledge are at the centre of interest for whoever has an interest of how the mind processes such representations.

At the stage of scholarship we're in right now, despite the disparities of opinions, there is growing consensus on the basic aspects of these domains and the demand of scholars is not so much about novel global theorizations at large but about actual, empirically sound, facts and about how these elements relate to and enlighten our general, reasonably well established, overall linguistic knowledge. This is what this volume aims at: producing fine-grained analyses that enable the community of linguists to enrich their own picture of the domain, bridge new gaps, and promote creative thinking about the missing links still holding in linguistics.

Part 1 takes tenses as starting points. The first paper is exemplary of the implications of one domain of investigation with the others. In her chapter, Victoria Escandell-Vidal addresses the complexities of the Simple Future in Romance and adopts a relevance-theoretic view for which tenses trigger inferential procedures. Through this lens, she proposes that all Simple Future tenses in Romance share a common core semantics, or instruction; that the situation they refer to is to be construed as a representation of a situation which cannot

be directly accessed by the speaker in the discourse situation. The specificities of the various Simple Futures across Romance languages are explained by layers of secondary instructions she labels 'parametric' (for example that some languages allow the Simple Future to be used as epistemic markers, and in different ways). Doing so, she brings about a proposal that delineates an account of the diachronic evolution of this tense. Showing that epistemic uses of the Simple Future in Romance languages is best explained by inferential evidentiality, she sheds light on the controversial issue of whether or not evidentiality can be subsumed under epistemic modality. As a follow-up on tense, in the second chapter, Naoaki Wada adopts the point of view of the speaker, asking which are the parameters at play in selecting tenses in narratives. Through a systematic comparison between English narratives and Japanese narratives, she remarks that the present tense is significantly more present in Japanese texts than in English ones. Her explanation uses a theoretical framework where a series of dimensions characterize the use of tenses and among them the notion that tenses differ on a psychological axis as for the way they set their 'deictic center'. Continuing on narration, in his chapter dedicated to the French Imparfait in narrative uses, Jakob Egetenmeyer discusses the literature and provides arguments against the prevalent view that there is one type of narrative, or 'dynamic' Imparfait, i.e. Imparfait that triggers a time update (forward temporal ordering). Drawing upon classical works in Discourse Representation Semantics and in particular the works of Kamp and Rohrer, Egetenmeyer analyses five different types of narrative Imparfaits depending on the presence of co-occurring adverbial expressions, temporal and contextual embeddedness, that of several occurrences in a row, temporal overlap, and considering telicity. The various cases bear properties that make them more fit for different text genres.

In Part 2 of the volume, aspect takes the focus. Alicia Cipria investigates how present progressive periphrases in some Spanish varieties select for 'futurate' readings. 'Futurate' readings are those where the situation is predicted from the perspective of the present, conveyed by means other than the canonical structures associated with the future. Looking at how preparatory processes are made accessible by the present progressive, she accounts for the cases where progressive aspect combined with Present tense provides for futurate readings; further comparing it with the canonical 'futurate' reading of the Simple Present. Turning to a crucial issue in aspect, Jacqueline Guéron and Svetlana Vogeleer look at how morphosyntax, the lexicon and conceptual patterns combine in providing non-culminating interpretations of accomplishments. They show that in such cases, the interaction between syntax and the lexicon at the level of the sentence structure triggers a specific conceptual configuration that represents two simultaneous points of view: a goal-oriented trajectory

that targets a change of state of an object, and the reverse perspective that takes the observation of a change of state and traces it back to a cause. Their demonstration is informed by a number of languages of different families and concentrates mostly on sequences where the grammatical aspectual features don't obviously call for an automatic conversion of the type of the 'imperfective paradox'; in particular they develop an extensive discussion on how secondary imperfective constructions in Russian (which are obtained by a transformation of a perfective radical, itself constructed by affixation on the basis of an original imperfective verb) license non-culminative readings of accomplishments. Myriam Bras and Jean Sibille dedicate their chapter to proper grammatical aspect in Romance through a cautious examination of the distribution of the Preterit and Perfect aspect in the Occitan variety. They pursue a data-driven analysis of a vast corpus and show that the Preterit and the Perfect, respectively the Simple Past and the Composed Past, are in a complementary distribution. They notice particularities such as the rare imperfective values with Simple Past and their analysis of the Composed Past allows them to provide an account without the need of an hodiernal constraint, often suggested for this tense in a number of Romance languages. They compare their findings on Lengadocian with preterits and perfects in other Romance languages and in Germanic languages and show that they are of particular interest inasmuch as they are in a middle position in the diachronic trend from perfect to aorist that drives the evolution of aspect in Romance according to the literature; the Lengadocian case is situated between Spanish and French in this respect and is thus of particular interest.

Part 3 of the book is dedicated to investigations centered on modality and evidentiality. Cameron Morin investigates double modal sentences, i.e. cases where a modal scopes over another one, a case easily found in some languages families like Romance but not, or only under some formal constraints, in other languages such as English, which will typically select specific modals to achieve such constructions ('He must be able to' *vs*. '??He must can', or 'He may have to come' *vs*. '??He may must come', etc., with regard to Romance 'Il doit pouvoir' or 'Il peut devoir'). This well-known phenomenon is however not homogeneous across variants of English and even though this topic has been investigated to some extent, Scots ('Scottish English'), as well as Scots-influenced pockets in Northern England and Ulster, lack collected data and analysis. Morin shows that double modals is an active morphosyntactic feature of Border Scots and calls for a unified account of double modals in English that would break the dividing line between American and Scottish English and show the connection between them. Still in the domain of Germanic languages, Thorstein Fretheim looks at Norwegian modal particle *vel* in interrogatives. He aims at demonstrat-

ing that "while a Norwegian *vel*-modified positive tag question after a negative declarative host codes a request for confirmation of the proposition associated with the syntactic host, the speech act performed by means of a free interrogative modified by *vel* is an assertion of the truth of the negative counterpart proposition". This very stimulating assumption is grounded not on superficial linguistic description but on an influential approach to the meaning of grammatical items, namely Relevance theory, which since the seminal works by Diane Blakemore postulates that such items are better conceived of as triggering interpretive procedures, or 'short-cuts', that take the representational-propositional dimension of the linguistic stimulus and return specific sorts of inferences. In the case of *vel*, the particle triggers metarepresentational interpretations by operating a selection on the contextual elements to be incorporated in the process. Fretheim's demonstration shows that *vel* is loaded with a specific modal, epistemic, meaning when they appear in free interrogatives, which does not arise when the particle is used in positive-polarity tag questions. This leads him to conclude that there must be two distinct, albeit formally identical, *vel* particles in Norwegian. Taking a wide look onto two very central notions crucial to modality, belief and performativity, Alda Mari reflects upon the respective status, and relations of potential dependency, between assertions and belief statements. Through a detailed semantic analysis, she shows how linguistics can contribute to what is a vivid debate in neighbouring disciplines such as philosophy, where the issues of the interaction between the two domains is not resolved. Her analysis surveys mood choice and other linguistic parameters and shows that 'believe statements' differ from (sincere) assertions only in the public dimension. Doing so, she accounts both for cases of mutual entailments between the two and for cases where belief statements seem weaker than assertions in the domain of epistemic modality. In their paper, Corinne Rossari and Elena Smirnova look at French and German modal verbs and more particularly at their textual argumentative environments. Through a corpus study, they document an approach of modality across three layers at which the modal element contributes: starting from a core semantics, the modal takes either a proposition or an 'enunciation' (a speech act), and in that latter case, it returns a 'rhetorical purpose' by either calling for strong support or not. Finally, turning to evidentiality in a less documented language, Rebeka Kubitsch investigates in this respect Udmurt, a Uralic language spoken in central Russia. Udmurt has a pair of synthetic past tenses (sometimes analysed as a preterit and a perfect), past 1 and past 2, which select specific evidential readings; Udmurt has also four 'pairs' of analytic past tenses formed with a finite verb form and an auxiliary bearing two possible forms. Udmurt appears to select among the two synthetic tenses according to evidential parameters of

particular complexity. Kubitsch conducts a quantitative and qualitative analysis to determine in particular the functions of the second synthetic past tense, touching upon other constructions such as a quotative particle, combinations with modal adverbials, with the necessitive participle and the imperative, presenting novel results that suggest that the semantic profile of that tense seems to undergo a change in the evidentiality of Udmurt where an opposition between an evidential and a non-evidential past form seems to arise.

All in all, the papers gathered in this volume cover a range of issues and a variety of methods that help delineate, each in its way, new perspectives on the broad domain of tense, aspect, modality and evidentiality.

CHAPTER 2

The Semantics of the Simple Future in Romance: Core Meaning and Parametric Variation

Victoria Escandell-Vidal

1 Introduction

It is a well-known fact that future-tensed sentences can receive a wide variety of interpretations. Cross-linguistic variation has been extensively described in the literature (Smith 1978, 1983; Fleischman 1982; Comrie 1985; Dahl 1985; Dahl & Velupillai 2008; Copley 2009; Jaszczolt & Saussure (eds.) 2013; De Brabanter et al. (eds.) 2014; Baranzini (ed.) 2017). Even within a single family, like that of Romance languages[1] a high degree of variation in the possible interpretations is attested (Sp., Fernandez Ramirez 1940–1950; Rojo & Veiga 1999; Matte Bon 2006; RAE 2009; Escandell-Vidal 2010, 2014; Laca & Falaus 2014; Rodríguez Rosique 2019. It., Bertinetto 1986, 1997; Squartini 1995, 2001, 2004, 2012; Rocci 2000; Mari 2009, 2010; Giannakidou & Mari 2018; Baranzini & Mari 2019. Port., Oliveira & Lopes 1995; Cunha & Cintra 1992; Mateus et al. 2006. Fr., Dendale 2001; Saussure & Morency 2012; Mari 2015; Baranzini & Saussure 2017. Cat., Pérez Saldanya 2002).

All Romance languages have temporal readings (ex. (1)). In contrast, they do not all allow conjectural interpretations, which are prevalent in Spanish and Portuguese, possible in Italian, infrequent and very restricted in French, and totally impossible in Catalan (ex. (2)). Concessive readings are possible only in Spanish, Italian and Portuguese, but not in French and Catalan (ex. (3)).

(1) The parcel will arrive tomorrow.
   a. *El paquete llegará mañana.* (Sp.)
   b. *Il pacco arriverà domani.* (It.)
   c. *A encomenda chegará amanhã.* (Port.)
   d. *Le colis arrivera demain.* (Fr.)
   e. *El paquet arribarà demà.* (Cat.)

1 I will consider main Western and Central varieties only given that Romanian represents a separate case, in part because of its contact with Balkan languages (see Laca & Falaus 2014; Rossari et al. 2017; and others).

(2) [Bell ringing] It must be the postman.
   a. *Será el cartero.* (Sp.)
   b. *Sarà il postino.* (It.)
   c. *Será o carteiro.* (Port.)
   d. %*Ce sera le facteur.* (Fr.)
   e. **Serà el carter.* (Cat.)

(3) He may be lazy, but he is not stupid.
   a. *Será perezoso, pero no es estúpido.* (Sp.)
   b. *Sarà pigro, ma non è stupido.* (It.)
   c. *Ele será preguiçoso, mas não é estúpido.* (Port.)
   d. **Il sera paresseux, mais il n'est pas stupide.* (Fr.)
   e. **Serà gandul, però no és estúpid.* (Cat.)

Yet, despite this attested diversity, a strong feeling remains that there is a common core of meaning and the various interpretations must be related to each other in a systematic way. These facts require a principled explanation.

In this paper I will address two sets of questions regarding the simple future in Romance languages:

1. Is there a common meaning for all simple futures? If so, how can it be described?
2. What is the source of cross-linguistic variation? To what extent can these languages differ? Are there limits to possible variation?

I assume that the meaning of verbal tenses is procedural in the relevance-theoretic sense (Blakemore 1987; Wilson & Sperber 1993; Nicolle 1997, 2007; Moeschler et al. 1998; Saussure 2003, 2011; Escandell-Vidal & Leonetti 2011; Escandell-Vidal 2017). Tense expresses a set of processing instructions to build a representation of the eventuality described. These instructions consist of conditions and requirements for the development of the encoded propositional schema, and also for the integration of linguistic and extralinguistic information at a higher illocutionary and discourse level, in order to obtain a full-fledged representation.

My hypothesis is that the meaning encoded by the simple future in Romance languages has two layers: i) a core meaning, shared by all these languages, and ii) a set of parameters, according to which each language makes its own specific selection of values. It is this particular selection that determines and constrains the kind of inferential development allowed in a given language. The differences attested among Romance languages result from different settings in the parameters.

The paper is organised as follows. After a general discussion of the major views on the future time (sect. 2), I will introduce the basic assumptions of

my account (sect. 3). Next, I will put forward a proposal for the semantics of the simple future, considering its core meaning (sect. 4) and the parameters of variation (sect. 5). I will then present an overview of the system of distinctions active in Romance languages (sect. 6). The main conclusions are gathered in the last section.

2 Modelling the Future

The semantic contribution of future-tense morphemes in inflectional verbal paradigms has been accounted for in terms of three different sets of primitive categories and relations.

2.1 *The Temporal Approach*

When characterising the contribution of tense morphology, the most straightforward approach that comes to mind is that tenses encode temporal relations. The best known system in this spirit is that of Reichenbach (1947). The primitive notions are a set of three points (the speech time S, the event time E and a reference time R) and a set of two binary relations (simultaneity and precedence). The future is defined by the formula S,R-E, which indicates that S is simultaneous to R, while E is located at a time posterior to both. In this system, the past, the present and the future are presented as symmetric to each other—the only difference being the temporal location of the event with respect to the speech time.

This view is closely related to a certain ontology and topology where time is conceived as a straight, non-branching, continuous arrow that extends without end in each of its two directions. Time is like an empty container in which things and events can be placed. This container exists independently of what is placed in it. The events posterior to speech time are actually located in time, as if they had actual existence. In this sense, past and future events are symmetric.

This idea is reminiscent of the proposals about the ontology of time put forth by Plato and Newton, and is also found in McTaggart's A-series and the Einstein-Minkowski space-time (Markosian 2014; Le Poidevin 2015). In linguistics, the temporal approach has also been adopted by Bertinetto (1991) and Rojo & Veiga (1999), among others. In this proposal, there is no room for non-temporal interpretations, which must be regarded as metaphorical uses.

2.2 *The Modal Approach*

A different way to understand the future is to see it as an array of open possibilities with varying degrees of probability. John Perry puts it very clearly:

> At each time there is a future which is characterized by a number of contingent possibilities or propositions, none of which have been made true at that time, and all of which might still be made true, but only one of which will be made factual: a garden of forking paths, as Borges puts it. Then, at a later time, some of those possibilities will be eliminated or made false.
>
> PERRY 2006: 13

Time can be modelled as an arrow forking at the present towards several possible futures. The past is fixed; the present is immediate and tangible; the future is open and undecided.

In this view, time is part of a set of empty containers (i.e., possible worlds) into which things and events may be placed. The passage of time will show which one of the alternatives comes true and so adds to the set of present events. The world and the universe are always expanding, and more and more events are added to them. With the passage of time, new pieces of space-time are continually brought into being, and the number of possible situations shrinks. The growth of the universe is independent from the observer (Markosian 2016; Le Poidevin 2015).

These ideas prepared the ground for modal theories of the future tense (see Kratzer 1991; Enç 1996; von Fintel 2006; von Fintel & Gillies 2007; Jazczsolt 2009; Jaszczolt & Saussure (eds.) 2013), where future events are located in possible, alternative worlds. Notions such as ordering sources and accessibility of worlds become central. Crucially, only past and present events have existence, so the past and the future are asymmetric. In many respects, we can choose our own path and act so as to try to make come true the things we want. This is why the modal approach seems to fit in well with contemporary ideas of agency and free will.

2.3 *The Evidential Approach*

There is still another way to view the future that places the speakers and their perceptual space at the very centre. This approach is based on the notion of the Speaker's Perceptual Field (SPF), "the set of locations *l* that (s)he has perceptual access to at the time *t*, where perception may involve any sense, not just sight" (Faller 2004: 69; see also Aikhenvald 2004, 2018).

All eventualities can be sorted out according to their relation to the SPF: each speaker has her/his own present and her/his own past, which contain all the events that fall inside her/his SPF. Past and present events that a certain speaker has not witnessed can be part of other speakers' experience. The future, in contrast, necessarily falls out of the perceptual sphere of anyone, since no-one has had direct experience of future events.

TABLE 2.1 Models of time and the future

	Primitive notions	**Status of future eventualities**	**Ontology of time**	**Topology of time**
Temporal	Temporal points	Factual	Block universe (Eternalism)	Linear Straight arrow
Modal	Sets of worlds	Non-factual Possible	Growing block Independent of observer	Linear Branching arrow
Evidential	Situations	Non-factual Non-experiential	Growing block Linked to observer	Spatial Perceptual space

The world and the universe are always growing, with more and more facts coming into existence. This growth, however, is not independent from the observer (who is the one experiencing situations), nor does it exist independently from the events that occur in time (Aristotle, Leibniz, McTaggart's B-series). Only the present is experienced; the past and the future, in contrast, exist only in the mind (Augustine of Hippo). There is, however, a significant difference between the latter two: we cannot perceive the future, but we can still keep track of what happened within our perceptual field (the Speaker's Perceptual Trace, SPT). This is why in various languages, such as Akkadian and Sumerian (Maul 2008) and Aymara (Nuñez & Sweetser 2006), the past is metaphorically located in the space in front of the speaker, whereas the future occupies the space behind.

This approach is the basis of the evidential proposals for the semantics of the future tense discussed in work by Squartini (2001, 2004, 2012), Rocci (2000), Kronning 2002, Escandell-Vidal (2010, 2014) and others.

2.4 *Kinds of Future*

The relation between tense and time is multifaceted. Though I cannot dwell on this issue at length here, I assume that the three aforementioned views are not merely alternative theoretical approaches but represent three different ways in which the human mind can conceive time and, particularly, the future (Escandell-Vidal forthcoming). The resulting models are summarized in Table 2.1.

Languages seem to make their basic choice from among these three options. Classical languages, for instance, such as ancient Greek and Latin, conceive forthcoming events as factual, so they can be modelled in temporal terms. Germanic languages, in contrast, typically resort to modal strategies and view

the future as a mere possibility, which favours an approach in modal terms. Romance languages seem to favour the view of the future as not experienced, hence modelled using evidential notions. This is the line that I will pursue in what follows.

3 The Semantics of the Simple Future in Romance: Overview and Main Assumptions

In a nutshell, my proposal is that the simple future in Romance languages is non-experiential, and hence better accounted for in evidential terms. Its encoded meaning has two layers:

– A core meaning, shared by all Romance languages. The simple future encodes the instruction to build the eventuality described by the sentence radical as the representation of a situation that cannot be directly accessed by the speaker from the discourse situation.
– A set of parameters expressing further conditions on the development of the abstract interpretive instruction encoded by the core layer. The values selected for the parameters are language-specific. These additional requirements determine variation among languages.

Central to my account is the assumption that inflectional forms of verbal paradigms are closed-class, grammatical morphemes consisting of sets of features that occupy a functional projection in the Tense domain. Tense features contribute to the interfaces at the level of both Phonetic Form (PF) and Logical Form (LF) (i.e., they contain interpretable features [+I], in the sense of Chomsky 1995).

As mentioned before, I also assume that the interpretable features of Tense are procedural (in the sense of Relevance Theory: see Blakemore 1987; Wilson & Sperber 1993; Nicolle 1997, 2007; Moeschler et al. 1998; Saussure 2003, 2011; Escandell-Vidal & Leonetti 2011; Escandell-Vidal 2017). In other words, the meaning of verbal tenses can be described as encoding a set of processing instructions to build a representation of the eventuality described. These instructions condition the development of the propositional schema, and also the integration of linguistic and non-linguistic information at a higher illocutionary and discourse level, in order to obtain a full-fledged representation.

Some of these interpretable features are invariant; other, in contrast, are subject to parametric variation. The idea that procedural meaning can consist of different layers of meaning is inspired by the analysis of the structure of procedural meaning in Saussure (2011). The idea of parametric variation is well known from the literature in the generative framework: parameters are a finite set of grammatical options to which different values can be assigned. Learn-

ability, syntactic change and cross-linguistic variation can all be explained in terms of setting the values for parameters (Chomsky 1981; Roberts 2001, 2003; Brandner 2012; Picallo (ed.) 2016). First language acquisition is a matter of setting the values for the parameters on the basis of the properties of the input children are exposed to during the critical acquisition period: "When a given datum expresses some parameter value, the learner will be under pressure to set that parameter to the value expressed by the datum" (Clark & Roberts 1993: 317). Syntactic change can be explained along the same lines as the result of changing the set values of one or more parameters. Finally, the difference between two given languages is the consequence of each language having one or more parameters set to a different value, which in turn offers the possibility of restricting and motivating the range of possible linguistic systems.

4 The Simple Future in Romance: The Anti-Experiential Present

My proposal for the simple future can be modelled along the lines developed to account for evidentiality by Nikolaeva (1999), Speas (2008, 2010), Davis et al. (2007) and Kalsang et al. (2013) (see also Faller 2004; Aikhenvald 2004, 2018). In this approach, evidential distinctions directly encode not the source of information but rather more abstract relations among situations, from which the kind of source can be inferred. The primitive notions in this model are three situations and two binary relations. The three situations are: 1) the Evaluation Situation (ES), the situation of which *p* is true; 2) the Discourse Situation (DS), the speech event; and 3) the Information Situation (IS), the minimal situation in which the speaker came to know that *p*. The two binary relations are those of accessibility and inclusion. The proposal is reminiscent of the Reichenbachian approach, with situations, instead of temporal points, as main *relata*. One of the obvious advantages of this approach is that it provides a natural explanation for the fact that the number of evidential categories (like the number of temporal relations encoded in languages) is constrained by the types of situations and the possible relations among them.

Now, elaborating on this approach, I argue that the core meaning of the future tense consists of an instruction to build i) an inclusion relation between DS and IS; and ii) a non-accessibility relation between IS and ES. These are represented in (4).

(4) i. IS ⊂ DS
ii. IS | ES

The inclusion relation of IS in DS (clause i) entails that the source of information is rooted in the situation defined by the discourse event. The future tense is therefore a kind of present (see Matte Bon 2006; Caudal 2012 for a similar approach). This means that the truth conditions and speaker commitments associated with the use of the simple future do not require access to other times or worlds to verify the event: a future-tensed utterance is true in the discourse situation only if it is true that the speaker's evidence is an internal mental process. The fact that the event takes place at a subsequent time, or that it can be verified elsewhere, does not affect truth conditions or speaker commitments in any significant way.

The non-accessibility relation between IS and ES (clause ii) entails that "the speaker can only have indirect evidence for an eventuality that unfolds outside his or her perceptual field" (Faller 2004: 69). Any category encoding a non-accessibility relation between IS and ES is, therefore, anti-experiential by definition. Of course, speakers can still have indirect evidence about a non-experienced event, but this has to come under other forms, namely, report and inference. When information is obtained from people who have had direct perceptual evidence for an eventuality, the evidence is reportative. When the source of evidence is the speaker's own mental processes, the evidence is inferential.

The truth conditions and speaker commitments associated with the use of the simple future require that the speaker has no perceptual evidence of the eventuality. The SPF must be conceived, of course, as both physical and psychological.

> [It] excludes locations in the surrounding physical space that are too far away for the speaker to perceive, as well as locations of a microscopic size. It also excludes locations that are within the perceptual reach of the speaker but which (s)he is not attending to at time *t*″.
>
> FALLER 2004: 70

In fact, the use of the future tense is not compatible with a clear and direct perception—though it can be with degraded visual perception and equivocal auditory perception. The anti-experiential requirement offers support for the idea that evidentiality cannot be considered a sub-class of epistemic modality (Caudal 2012).

To sum up, the two clauses of the formula in (4) require that the ES be outside the SPF and its source IS be accessed at the DS. The only way to meet these two requirements is to build a representation of an event incompatible with direct perception, accessed as a thought in the discourse situation. The speaker's

mental processes include intentions, deductions, suppositions and gut feelings, among others. In all cases, the speaker cannot have perceptual access to the event itself. This, then, is the core meaning of the simple future: a future-tensed sentence represents an eventuality to which the speaker does not have direct access.

Not surprisingly, the relations defined by the formula in (4) for the simple future happen to be the same used to characterise the semantics of inferential evidentials (i.e., markers that indicate that the speaker's source for her/his assertion is inference. See Speas 2010; Kalsang et al. 2013; Murray 2017). It is precisely this similarity in the geometry of situations that explains why the simple future can have evidential readings of the inferential sort (Rocci 2000; Squartini 2001, 2004, 2012; Kronning 2002; Escandell-Vidal 2010, 2014). But the formula in (4) is, of course, not restricted to what we usually call 'evidential' (conjectural) uses of the simple future. On the contrary, in my proposal the formula is intended to account for all the possible readings of future-tensed sentences.

To see how the proposal applies to the various readings, let us first consider so-called "temporal", forward-looking readings, such as those in (1). According to the formula in (4), the semantics of the simple future encodes an instruction to build the representation of a situation falling outside the SPF, but accessed as a thought in the discourse situation. In temporal readings, therefore, the actual event is indeed not accessible to direct perception (clause ii), since it is supposed to happen at a posterior time—one to which the speaker has no perceptual access from the current discourse situation. The event can be expected to take place on the basis of logical and causal necessity, such as a public schedule or a private intention:[2] these are the grounds on which the speaker infers the represented thought at the discourse situation (clause i). Of course, expectations about future events can come with various degrees of certainty, depending on the speaker's basis for her/his utterance. But, even in the most favourable situation of causal necessity, what the future tense encodes is only the speaker's lack of perceptual evidence, not a kind of epistemic commitment (see Squartini 2001, 2012).

2 The Spanish examples in (i)–(iii) illustrate these possibilities. Parallel examples can be found for other Romance languages.

(i) *Si lo cargas demasiado se hundirá.*
'If you put too much weight on it, it will collapse.'

(ii) *La reunión se celebrará el martes.*
'The meeting will be held next Tuesday.'

(iii) *La llamaré mañana.*
'I'll phone her tomorrow.'

Conjectural readings (also called 'evidential readings'), such as those in (2), can be accounted for along the same lines. According to the formula, the future tense indicates that the speaker is representing an eventuality s/he can only infer, because s/he has no direct perceptual access to it. This is exactly what conjectural readings convey: the representation of a thought in which the speaker puts forward a hypothesis about a possible eventuality that explains an observed state-of-affairs. Again, the inference can be sustained with varying degrees of plausibility or certainty, but this is a matter totally independent from the meaning encoded by the future tense.

Finally, concessive readings, such as those in (3), also fit neatly into the semantic formula in (4). In the examples in (3), the speaker claims that s/he has no direct perceptual access to the eventuality represented in the future-tensed sentence. In this case, crucially, other individuals in the context must claim to have had it. It is precisely this contrast that the so-called concessive interpretation bring to focus (cf. Baranzini & Mari 2019).

In its semantics, then, the simple future is an anti-experiential present. The schema in (4) can thus account for the main readings of the future illustrated in (1)–(3). A future-tensed utterance requires that in the discourse situation the speaker has no direct access to the represented eventuality, but has some grounds on which s/he has formed the represented thought. The formula is abstract enough to capture the underlying similarities found for not only all Romance languages but also all stages in their development, thus lending support to the idea that what we call 'the simple future' indeed forms a semantic natural class, with a semantic invariant that survives both diachronic change and cross-linguistic variation.

Of course, the formula in (4) cannot be claimed to represent the whole meaning encoded by the future tense. It is meant to represent only the core layer. In particular, it does not account for cross-linguistic variation, so it cannot explain why French, but not Catalan, allows for conjectural readings, and why concessive readings are impossible in both Catalan and French.

Hence, in order to have descriptive adequacy and gain explanatory power, the formula needs to be fleshed out by adding specifications that further restrict the way in which the instruction it encodes is to be developed. These additional instructions are still part of the encoded meaning, though their specific values are not necessarily common to all Romance languages. It is in these specifications that cross-linguistic variation and diachronic change are to be located; and it is here that the notion of parameter enters the picture.

5 Parametric Variation in the Semantics of the Simple Future in Romance

The second part of my proposal is that the meaning encoded by the simple future also contains a set of parameters, whose different values determine the kind of inferential developments that are allowed in a language. Thus, all languages share the core meaning represented by the schema in (4), but each language (or language stage) makes its own choice of values for the parameters. It is therefore the specific values chosen for the parameters that determine the interpretive properties of future-tensed sentences in a given language.

In order to limit the inventory of parameters, my proposal is that they can only set constraints on the status of the three situations involved and on the relations holding between them. This is the idea I will develop in what follows.

5.1 *The Status of* ES*: The* [±*factual*] *Parameter*

The first parameter I want to propose determines the status of the ES: it specifies whether the eventuality represented by the proposition belongs to the actual world. I will call this the [±factual] parameter. When its value is set as [+factual], the spatiotemporal coordinates of the event are located within the actual world. The proposition represents "a state of affairs in virtue of its propositional form being true of that state of affairs" (Sperber & Wilson 1986/1995: 228): in relevance-theoretic terms, the representation is used descriptively. Thus, in languages in which the future has the value [+factual], the ES refers to an event presented as having actual existence (i.e., in a fatalistic view, where future events are decided and unavoidable). The future tense is *realis*.

When the value is set as [-factual], in contrast, the proposition represents "some other representation which also has a propositional form—a thought, for instance—in virtue of a resemblance between the two propositional forms" (Sperber & Wilson 1986/1995: 229): it is used interpretively. Languages with [-factual] futures conceive the proposition radical as the representation of an eventuality; in other words, a potential eventuality. In these languages, an event in the simple future must be interpreted as undecided. The value [-factual] represents the unmarked member of the opposition, not the negative one. Therefore, [-factual] indicates that the event is not marked as [+factual], not that it has to be obligatorily non-factual, though the non-factual reading is the most straightforward interpretation.

The [±factual] parameter determines the basic split between Latin and Romance languages. Latin had a factual, *realis* future. The inflectional future AMABO was used to refer to eventualities happening in a time ahead of the present, but where everything was already pre-established. In this vision, every-

one's destiny was irrevocably governed by fate (coming from FATUM, the past participle of the verb FARI 'speak', hence meaning 'that which has been spoken'). In this fatalistic world, events to come are fully decided, though unknown to most mortals. This is why prophets, sibyls and augurs were common in the Ancient World. By resorting to divination, the enquirers tried to gain knowledge from sources that could know better. The answers obtained were not mere probabilistic estimations, but reported facts. This view roughly corresponds to Reichenbach's picture about the future tense, which was actually influenced by his knowledge of Classical languages and cultures.[3] Factual futures convey, then, both temporal order (moving forward along the timeline) and certainty.

The periphrastic form AMARE HABEO represents the change from a [+factual] future to a [-factual] future (see Coseriu 1957; Company 2006). The periphrastic future was initially fully transparent. It combined two different functional categories: a present form of *have* and an infinitive, thus indicating a present state about a potential event (see Matte Bon 2006; Caudal 2012). The present morphology indicated the inclusion relation between the DS and the IS; the infinitive presented the eventuality as possible (see Broekhuis & Verkuyl 2014 for a similar idea). The Latin periphrastic future thus conveys the representation of an eventuality that can possibly happen in a time that will come, but is not fixed. It is compatible with temporal order (i.e., with moving forward along the timeline), but it does not impose the factuality of future events. If events are not factual and not fixed, the ideas of certainty and obligation associated with the Latin inflectional future disappear. This represents a radical difference with respect to the status of the ES. Factual future events entail the idea of necessity, certainty and obligation; non-factual future events, in contrast, convey intention and volition. Romance simple futures inherit the [-factual] value from the periphrastic form from which they derive.

5.2 *The Status of IS: The* [±*deictic*] *Parameter*

The [±deictic] parameter determines the status of the IS, in particular whether or not it is connected to the SPF (Nikolaeva 1999; Faller 2004; Chung 2005). This parameter relates to the way in which the flow of time is conceived: either as independent from the observer, like the flow of a river, for which the existence of a passer-by is totally irrelevant; or as dependent on the existence of an observer, like a journey, in which relevant events are those that happen to

3 This fatalistic world is not unique to ancient civilizations. In the world depicted in Denis Villeneuve's 2016 film *Arrival*, the future is not only decided and unavoidable: it can be known to all those who speak the language of the heptapods.

the traveller. It is this difference that the [±deictic] parameter seeks to capture. When the value is set as [+deictic], there are speaker-based constraints on how the reference point (here, the IS) is calculated; if the value is [-deictic], in contrast, there are no such constraints (see Brisard 2013; Chilton 2013). This parameter determines the basic split between languages that allow conjectural readings of the future tense and those that can only have temporal, forward-looking interpretations

When the [-deictic] value is selected, the real world is defined for all speakers, in a generic way: the coordinates that determine whether or not an eventuality is part of the real world are objective, so the fact that a particular speaker witnesses a certain event, or not, makes no difference to the status of the event itself. A state-of-affairs that takes place in the real world is always real, no matter whether it falls inside or outside the SPF. Eventualities located in the future, in contrast, can never belong to the real world, but only to a possible world. In languages with the [-deictic] value, the future tense is modal and can only be used for eventualities that are generically part of a possible world. This excludes, crucially, the existence of conjectural readings of the future tense, since a conjecture is an estimation about an event in the real world—though unknown to the speaker.

When the [+deictic] value is selected, in contrast, the SPF is the relevant domain to determine the status of an eventuality: alternative worlds are those that fall outside the current speaker's experiential space, even if they are part of the real world and can fall within the experiential space of other speakers. There is no significant difference between non-experienced events belonging to the real world, on the one hand, and non-experienced events belonging to a time to come, on the other: both are out of the SPF, hence they can be treated alike. It is therefore in these languages that the future tense can have conjectural readings. Thus, from the perspective of the speaker's deictic space, both a future event and a non-witnessed event can be referred to by means of a future tense.

5.3 *The IS|ES Relation: The [± forward] Parameter*

The non-accessibility relation between IS and ES defines the simple future in Romance as an anti-experiential tense: the speaker cannot have direct access to the represented event, only indirect evidence. And indirect evidence happens to be highly sensitive to the values selected for the parameters controlling ES (the [±factual] parameter) and IS (the [±deictic] parameter).

Consider factual events first. Those that occurred within the SPF in the past can be accessed as memories: memories are not in the current SPF, but still belong in its perceptual trace (*P-trace*, i.e., the mapping of the SPF for each

(past) time *t* along her/his lifespan. See Faller 2004). Factual events that are not contained in the SPF or the P-trace can still be accessed, though in an indirect, mediated way, through someone else's report, including second-hand reports, hearsay, rumour, folklore, etc.

In contrast, non-factual representations can never be directly perceived, so they are necessarily out of the SPF. They have a dedicated mode of access: inference. In fact, the only possible source for a non-factual eventuality is a mental process. There is a strong connection, then, between non-factual representations and inference. And it is this connection that is found in the configuration of some future tenses. As a consequence, if a language selects the [-factual] [+deictic] values, this choice entails that the represented ES has to be located out of the SPF.

Now, the formula establishes that the ES cannot be accessed from the IS, but does not specify the reason of such a limitation. The [± forward] parameter conveys the acceptable conditions. The [+forward] value indicates that the reason for the non-accessibility of ES from IS is forward temporal distance: the represented eventuality is not accessible because it is out of the SPF, in a time in the future to which the speaker has no access. Or, put differently, the possible worlds in which the representation ES can be located are restricted to those that are a continuation of the actual world at a time posterior to the time of speech. This configuration yields languages in which the future can only receive temporal interpretations.

When the value selected is [-forward], in contrast, no specific constraints are placed on the direction in which the ES is to be located: all possible worlds that are not accessible from the SPF qualify as legitimate. This includes, of course, those located at a posterior time (as in the previous case), but crucially also those located in a different space, provided that they are out of the SPF. Thus, both time and space can be responsible for the non-accessibility relation between IS and ES. As a consequence, in languages that select the [-forward] value, the future can have both temporal and conjectural readings. The 'elsewhere' interpretation can include other coordinates. Of course, the 'forward' interpretation is still allowed, though not obligatory.

6 The System of Distinctions in Romance

According to my proposal, Romance languages share a semantic core meaning and differ in the values taken by the parameters. Given a particular language at a particular synchronic stage, the semantics of the future can be accounted for by specifying the values chosen. The general picture is presented in Table 2.2:

TABLE 2.2 The semantics of the simple future: core meaning and parameters

Core meaning		**IS | ES** **DS ⊂ IS**					
Parameters		**Latin**	**Catalan**	**French**	**Italian**	**Spanish**	**Portuguese**
ES	[±Factual]	+	−	−	−	−	−
IS	[±Deictic]	−	−	+	+	+	+
IS|ES	[±Forward]	+	+	+	−	−	−

Latin appears as a language where the future tense is [+factual], [-deictic] and [+forward]. This means that future-tensed sentences express factual eventualities that will happen at a time posterior to the speech time, and that are independent from the SPF: future events are therefore fixed and necessary, though unknown to the speaker. This factual nature explains why the answers of oracles are treated as (factual) reports, not predictions (Maul 2008).

Catalan is characterized as [-factual], [-deictic] and [+forward]. This configuration of values explains why Catalan allows temporal readings only. Future eventualities are not fixed and necessary, as they were in Latin, but only possible, as in other Romance languages. However, unlike other Romance languages, the SPF is not relevant to calculate the location of the eventuality—the only condition being that it belongs to a posterior time. Therefore, due to the [-deictic] value, conjectural readings are disallowed, since conjecture invokes a state-of-affairs that belongs to the real world. Languages with modal futures behave similarly in this respect.

The future tense in French is [-factual] [+deictic] [+forward]. Future eventualities are non-factual, related to the SPF and situated ahead of the speech time. The [+deictic] value of the future tense allows using it to refer to eventualities falling outside the SPF (either because they are located in a different time or because they happen in a different space). However, the [+forward] value still restricts the interpretation to a route moving forward along the timeline, indicating that at some point the future event will fall within the perceptual field of the speaker, or that of a relevant judge. This is why in French conjecture is interpreted as requiring deferred verification (Saussure & Morency 2012).

Finally, Italian, Spanish and Portuguese show the same configuration of parameters. The simple future in these three languages is [-factual], [+deictic] and [-forward]. Therefore, they refer to possible eventualities that must be out of the current SPF and that can be located either ahead in time or in

a present, though non-accessible, parallel space. The [-forward] value places no constraints on the verification route. This also explains why only Spanish, Italian and Portuguese, but not French or Catalan, can have so-called concessive readings (such as those in (3)). By using the future-tensed sentence, the speaker explicitly indicates that s/he lacks direct evidence for an eventuality, in a context where it should be manifest that other individuals have had access to it. The concessive reading comes from the fact that the speaker does not contest that others can have direct evidence; s/he merely states that s/he has no such evidence, hence the concessive flavour. Of course, there is nothing inherently "concessive" in the future tense itself, concession thus being a by-product of the general meaning encoded by the future and the context.

The fact that Italian, Spanish and Portuguese show the same parametric configuration does not mean, of course, that the future in these three languages behaves in exactly the same way; rather, what this suggests is that the differences are to be found not in the semantics of the temporal morphemes, but rather in other features of the grammar, particularly in the structure of the verbal paradigm. For instance, the simple future in Spanish is banned from most types of subordinate clauses, whereas this restriction is not as strict in Italian. Portuguese maintains a simple future for the subjunctive mood, a form that Italian and Spanish have lost; this fact determines its grammatical distribution.

The various interpretations attested in a given language are all the result of a configuration of values for the semantic parameters, on which pragmatic processes operate, further modulating the semantic procedure encoded by taking into account both local restrictions and contextual assumptions.

7 Conclusions and Consequences

I have put forth a proposal about the semantic import of the simple future in Romance that seeks to capture the shared meaning and account for diachronic change and linguistic variation. The core semantics of the future tense encodes the instruction to build the representation of an eventuality that satisfies two conditions: a relation of non-accessibility between IS and ES, and a relation of inclusion between DS and IS. The status of ES, IS and the relation between them is subject to parametric variation.

The existence of a shared semantic core explains why the future tense is a natural semantic class across languages. From a general perspective, the suggested approach also shows that modelling procedural meaning in algorithmic

terms can provide a useful tool to account for variability without abandoning a monosemic hypothesis. Cross-linguistic diversity is the result of selecting different values for one or more of a restricted set of parameters. Language change involves going from one system to another, as happened in the passage from Latin to Romance. Semantic parameters can offer a format to deal effectively with variation and diachronic change.

The formula and the configuration of the parameters define a basic procedural semantics, but are not meant to encompass all the possible nuances of interpretation that future-tensed sentences may receive across languages. The meaning encoded does not fully determine every aspect of utterance interpretation. It establishes a precise set of relations, conditions and requirements that must be satisfied at any cost but is still largely underspecified, in that it leaves a number of aspects open to further elaboration by pragmatic processes combining linguistic and contextual information (including verbal aspect and *Aktionsart*, person, control, etc.) to obtain a full-fledged representation. Still other grammatical considerations, such as the components and structure of the verbal paradigm, also play a crucial role in determining the combinatorial and interpretive properties.

Taking this stance also provides a convenient framework to account for aspects of the acquisition process. Consider L1 acquisition again. In a parametric approach, children learn the semantic contribution of verbal tenses by setting the parameters on the basis of the cues that the children receive as input in their natural environment. That is, children are exposed to input data that show how tenses are used and what interpretations are allowed for them. Thus, for instance, Spanish children are frequently exposed to future-tensed utterances that express conjectures and suppositions and, to a much lesser extent, intentions and eventualities located in a time to come; children are not exposed to future-tensed sentences in embedded positions. In contrast, Catalan children are exposed to prospective uses only, and do not receive input data suggesting that the future can express conjecture or supposition. In neither of these two languages, however, are children exposed to uses of future-tensed sentences expressing necessity and obligation in their natural environment: these readings are only learnt through formal instruction, with severe register restrictions and at a much later stage, when presumably parameters have been already fixed. This explains why necessity and obligation interpretations do not seem to belong with the fully active uses: they are understood, but not spontaneously produced. Interestingly, this situation is found in other Romance languages. What this suggests is that the structure of meaning defined by the parameters determines the grammar of productive uses only, and leaves aside non-natural, non-productive uses, which are relics of a previ-

ous system (Escandell-Vidal 2018). When this approach is adopted, L2 learning can be seen as involving the readjustment of the values and features of existing, common parameters in the spirit of the 'feature-reassembly hypothesis' (Lardiere 2008).

An account in terms of parameter setting can likewise provide a principled framework for explaining how languages change. For instance, conjectural uses of the simple future in Spanish were quite limited in the early stages of the language; however, starting in the 17th century they have steadily increased, and have even overtaken temporal uses for most dialects in contemporary Spanish (Sáez Godoy 1968; Sedano 2006; Escandell-Vidal 2014). Under the approach I put forward here, this fact can find a natural explanation in terms of a gradual readjustment of the values for one of the parameters.

As for cross-linguistic variation, the suggested approach not only provides a framework to understand how and where languages differ, it also restricts possible variation. The range of possible languages is therefore limited to a few predictable combinations.

The above considerations can also cast some light on a controversial issue, namely, whether or not evidentiality can be subsumed under (epistemic) modality. In the case of the future tense, necessity and certainty are effects of the factual status of future events in some parameter configurations, whereas possibility relates to non-factual futures. In both cases, the future tense does not directly encode necessity, certainty or possibility, though these can be inferred in certain contexts (Squartini 2004; Speas 2008; Caudal 2012). Similarly, the set of parametric indications conveyed by the future morphology seem to behave like inferential evidentials in the sense that they are not part of the at-issue content, whereas modal indications always fall on the side of the at-issue content (Escandell-Vidal 2014; Murray 2017). All these are aspects that deserve future investigation.

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CHAPTER 3

Tense Choice and Interpretation in First-Person Stories: A Contrastive Study of English and Japanese

Naoaki Wada

1 Introduction

In this paper, I provide a systematic analysis of tense choice and interpretation in first-person stories (narratives) in English and Japanese within a framework consisting of a general theory of tense and a model for narrative interpretation, and show that the framework is motivated by—and thus supports—a general theory of language use intended to deal with certain differences between the linguistic systems of the two languages.

There have been numerous linguistic studies on narratives (including fiction) from various perspectives (Bache 1986, Banfield 1982, Benveniste 1971, Chafe 1994, Dancygier 2011, Declerck 2003, Dry 1983, Fleischman 1990, Fludernik 1993, 2009, Hinrichs 1986, Leech and Short 1981, McIntyre 2006), but none of them have seriously considered differences in tense choice between English and Japanese fiction. In English (and many other West European languages) the tense form traditionally used in narratives is past (Fludernik 2009: 51), as in (1) and (3), but in Japanese the "present" (tense) form, or the *-ru* form, is often intermingled with the "past" (tense) form, or the *-ta* form,[1] as in (2) and (4), which are, respectively, the Japanese counterparts of (1) and (3):[2]

1 Japanese present forms, also known as non-past forms, include predicates ending not only with *-ru* or *-u* in the case of verbs, but also with *-i* in the case of adjectives (e.g. *shiro-i* 'be white') or *-da* in the case of nominal adjectives (e.g. *tensai-da* 'be a genius'). Japanese past forms include predicates ending with *-da* under certain conditions, as in *shin-da* 'died'.

2 The following abbreviations are used in the glosses of Japanese examples:

ACC: accusative case marker, AUX: auxiliary, CON: continuative marker, COP: copula, GEN: genitive case marker, LOC: locative case marker, NML: nominaliser, NOM: nominative case marker, PAST: past tense morpheme, PRES: present tense morpheme, PROG: progressive aspect morpheme, Q: interrogative marker, QUOT: quotative particle, SFP: sentence final particle, STAT: stative marker, TOP: topic marker.

(1) On the morning of August 8, 1965, Robert Kincaid locked the door to his small two-room apartment on the third floor of a rambling house in Bellingham, Washington …, where his old Chevrolet pickup truck was parked in a space reserved for residents of the building. (R.J. Waller, *The Bridges of Madison County*, pp. 1–2)

(2) *Senkyūhyakurokujūgo-nen hachigatsu-yōka-no-asa Robāto Kinkeido-wa*
1965-year August-8-GEN-morning Robert Kincaid-TOP
jibun-no chiisana futaheya-no apāto-no doa-ni
self-GEN small two room-GEN apartment-GEN door-LOC
kagiokake-ta. Washinton-shū Beringuhamu, zōchiku-o
lock-PAST Washington-state Bellingham extension-ACC
kasaneta tatemono-no sankai-dea-ru. … Tatemono-no jūnin
repeated building-GEN third floor-be-PRES building-GEN resident
senyōno chūsha supēsu-ni, furui shiborē-no
reserved parking space-LOC old Chevrolet-GEN
pikkuappu torakku-ga tometea-ru.
pickup truck-NOM be parked-PRES
(*Madeisongun no Hashi*, p. 1)

(3) On a mellow evening in September, I was coming from the garden with a heavy basket of apples which I had been gathering. It had got dusk, and the moon looked over the high wall of the court, causing undefined shadows to lurk in the corners of the numerous projecting portions of the building. (E. Brontë, *Wuthering Heights*, p. 93)

(4) *Kugatsu-no kimochinoii aru-yoi-no-koto, atashi-wa*
September-GEN confortable certain-evening-GEN-NML I (female)-TOP
tsunda-bakari-no ringo-de omokunat-ta kago-o
pick-just after-GEN apples-with become.heavy-PAST basket-ACC
sage-nagara, niwa-kara modot-te ki-mashi-ta. … bonyarito
hang-while garden-from return-CON come-polite-PAST undefined
usugurai kage-o tsukut-tei-mas-u.
dim shadow-ACC form-STAT-polite-PRES
(*Arashigaoka*, pp. 193–194)

(1) and (2) are excerpts from a third-person story; (3) and (4) are from a first-person story. As the red parts show, the English texts consistently require past forms, while the corresponding Japanese texts allow for present (non-past) forms. Generally speaking, one can only narrate a story when it is over

(Fludernik 2009: 51)—this style of story is referred to as a past tense narrative—so why Japanese does not conform to the consistent use of past forms in past tense narratives can be an issue.

The "peculiar" behaviour of present forms in Japanese narratives itself is well known. For example, Ikegami (1991: 2137) points out that Japanese present forms occur much more freely than English present forms in past tense narratives, attributing the reason to the fact that in Japanese, stative predicates are most likely to occur in the present tense.[3] Ikegami's (1991) findings may be compatible with the behaviours of the present forms in (2) and (4), but a question arises as to why Japanese present forms behave that way. To the best of my knowledge, few studies have systematically analysed different behaviours with respect to tense choice in English and Japanese narratives (including the above observed behaviour) in terms of the typological characteristics of languages. Ikegami (2005) might be able to give an account of the above behaviour of Japanese present forms. He characterises Japanese as a cognising subject-oriented language based on the distinction between a locutionary subject (i.e. a person who communicates with a hearer/addressee) and a cognising subject (i.e. a person who construes the situation to be encoded before doing a locutionary act and is the subject of monologic cognitive activities).[4] If we apply this aspect of Japanese to the behaviour in question, we might explain the behaviour—at least in third-person stories—by claiming the following: A character (i.e. a different type of person from the narrator as a locutionary subject) can be regarded as a cognising subject because he/she can behave as the origin of a cognising activity, and linguistic phenomena in Japanese tend to be attributed to the cognising subject; the character's perspective is located in the narrative now (i.e. the present moment in the story) and can provide a reference point for describing situations or scenes (i.e. sets of situations in a particular context). Thus, in Japanese, present forms (representing non-anteriority) can be chosen to refer to situations occurring in the narrative now (which are typically described by stative predicates).

However, unlike third-person stories, such as (1) and (2), the narrator doubles as a character in first-person stories—a monologic cognitive activity—and it is not clear whether the above claim could apply to the behaviour of Japanese

3 In this connection, Ikegami (2005: 148–149) points out that the Japanese present form occurs more frequently and variously than the English historical present. For the way the English historical present is used, see, for example, Wolfson (1979).

4 The term *situation* covers whatever is described by a verb or predicate (phrase), or the clause including it (e.g. an action, event, state of affairs).

present forms in first-person stories, as illustrated in (4) above and (5) below ((6) is the English counterpart of (5)):

(5) *Boku-wa kokuban-ni kyōshi-ga taishoshi-ta*
I (male)-Top blackboard-Loc teacher-Nom signify-Past
ryōshinteki toiu sanmoji-o nagame-ta. Dokokano
conscientious said three letters-Acc gaze-Past somewhere
kyōshitsu-de kasureta orugan-no oto-ga kikoe-ru.
classroom-Loc faint organ-Gen sound-Nom hear-Pres
Onnanokotachi-ga shōka-o utat-tei-ru.[5]
girls-Nom choir-Acc sing-Prog-Pres
(S. Endo, *Umi to Dokuyaku*, pp. 104–105)

(6) I gazed at the three figures on the board which signified *conscientious*. From a classroom somewhere, the faint sound of an organ could be heard. The girls' choir was practising. (*The Sea and Poison*, p. 107)

Moreover, as far as I know, no previous studies have explained differences in the choice of tense forms between English and Japanese narrative stories (including the "peculiar" behaviour of Japanese present forms) in terms of a unified model of tense choice and narrative interpretation. Neither has it been theoretically discussed in the first place whether Japanese tense forms are the same type as English tense forms when we speak of "present" or "past" forms.

Finally, few studies have addressed, in a unified way, the mechanism of interpreting tenses in both past scenes (those occurring in the narrative now, as in (1)–(6)) and present scenes (those described at the time of narration, as illustrated by the red parts in (7) and (8)) of English and Japanese first-person stories.

(7) *Watashi-wa sono hito-o tsuneni sensei to*
I (forml)-Top that person-Acc always teacher Quot
yon-dei-ta. Dakara koko-demo tada sensei to
call-Prog-Past because here-too simply teacher Quot

5 In Japanese, *-te(i)-* in the *-te(i)-ru* form is used as a progressive marker, but under certain conditions, *-de(i)-* is used instead. This morpheme can also be used as a stative marker, as in *shit-te(i)-ru* 'know'.

kak-u *dake-de* *hommyō-wa* *uchiake-na-i.* *Kore-wa*
write-PRES only real name-TOP confess-not-PRES this-TOP
seken-o *habaka-ru* *enryo* *toiuyorimo,* *sonohō-ga*
public-ACC hold back-PRES constraint rather than that way-NOM
watashi *nitotte* *shizen* *dakara* *dea-ru.*
I for natural because COP-PRES
(N. Sōseki, *Kokoro*, p. 7)

(8) I always called him "Sensei". I shall therefore refer to him simply as "Sensei," and not by his real name. It is not because I consider it more discreet, but it is because I find it more natural that I do so. (*Kokoro*, p. 1)

To address the above issues, in section 2 I first construct a theoretical framework. It involves the general theory of tense developed by Wada (2001, 2013, 2017), which has provided a basis for explaining tense phenomena in English and Japanese with the help of certain differences between their typological characteristics (i.e. those concerning where their basic "egocentricity" lies relative to certain aspects of the speaker); this is an essential aspect for the general theory of language use to be considered in section 4. The framework also expands the narrative interpretation model proposed by Wada (2015)—which was intended to deal with the tense phenomena of third-person stories in English—into the first-person stories by dividing the text into five interpretive environments in terms of certain sets of factors involved in narrative interpretation, with the help of the differences about the basic egocentricity of the two languages. In section 3, by using the constructed framework, I analyse the mechanism of choosing tenses in the non-conversational parts (including narrative/foregrounded and descriptive/backgrounded parts) of first-person stories in the two languages. In section 4, I show that the analysis of the tense phenomena of the first-person stories in section 3 can be motivated by—and thus support—the general theory of language use proposed by Hirose (2013, 2015) and advanced in Hirose et al. (2017). Section 5 offers a brief conclusion.

2 Theoretical Framework

2.1 *A General Theory of Tense*

The general theory of tense adopted here assumes English finite forms to be absolute tense forms in that they have an A(bsolute tense)-morpheme, i.e. a tense morpheme integrated with markers of other deictic categories such as

person, number, and mood, although in present-day English, only the third-person singular indicative morpheme *-s* is morphologically realised with regular (weak) verbs in the present tense,[6] as illustrated by (9):

(9) {I like/You like/Mary likes} music.

The presence of A-morphemes enables the tense structure of absolute tense forms to involve a "cornerstone" (called the speaker's t(emporal)-viewpoint) which causes speech time to be the base point in relation to which the relevant speaker chooses finite tense forms. Thus, it is usually the case that present forms are chosen to refer to the present, and past forms to refer to the past, irrespective of whether they occur in main or subordinate clauses, as in (10):

(10) a. John {was/is} sick.
b. Mary said that John {was/is} sick.[7]
c. The boy who {was/is} sick wants to go skiing.

On the other hand, Japanese finite forms are assumed to be relative tense forms because they have an R(elative tense)-morpheme, i.e. a tense morpheme that is not integrated with markers of person and number and which is not accompanied by an exact equivalent of the mood system of Western European languages including English, as exemplified by (11):

(11) {*Watashi/Anata/Meari*}*-wa* *ongaku-ga* *suki-da.*
{I (female)/You/Mary}-TOP music-NOM fond of-COP
'{I am/You are/Mary is} fond of music.'

Not having A-morphemes, Japanese finite forms do not involve the speaker t-viewpoint in their tense structure, and the base point for their choice is not necessarily identified as speech time, but is rather determined based on the characteristics of the linguistic environments in which they appear. This is illustrated by (12):

6 Regarding English regular verbs, it is assumed that other present-tense morphemes are morphologically realised as "zero" morphemes, and all past-tense morphemes as *-(e)d*. With English irregular (strong) verbs, a verb stem and tense morpheme are morphologically fused, as in *gave* (*give-* + *-ed*).

7 Although the present tense in the indirect speech complement can receive a double-access reading, i.e. a reading in which the situation described by the present tense refers to both the

(12) a. *Tōru-wa byōki-{da/dat-ta}.*
Toru-Top sick-{Cop.Pres/Cop-Past}
'Toru {is/was} sick.'

b. *Yōko-wa Tōru-wa byōki-{da/dat-ta} to it-ta.*
Yoko-Top Toru-Top sick-{Cop.Pres/Cop-Past} Quot say-Past
'Yoko said that Toru {was/had been} sick.'

c. *Tsugini tazuneru-toki-wa byōki-{no/dat-ta} hito-ni ai-tai.*
Next time visit-when-Top sick-{Cop.Pres/Cop-Past} person-to see-want
'Next time we visit (the place), we want to see the person who {is/has been} sick.'

The point here is that in subordinate clauses, such as those in (12b, c), the present and past forms can refer, respectively, to the present and past relative to the main-clause time. Because Japanese tense forms are different from English ones in terms of their tense structures, in what follows *-ru* forms and *-ta* forms are reserved, respectively, for Japanese present forms (including *-te*(*i*)*-ru* forms) and past forms (including *-te*(*i*)*-ta* forms).

The claim that English finite tense forms have the speaker's t-viewpoint in their tense structure, but Japanese ones do not, is motivated by the notions of English as a public self-centred language and Japanese as a private self-centred language, which are introduced and developed by Hirose (2000). As a premise for this typological difference, the notion of "speaker" is decomposed into two aspects: the "private self" and the "public self". The private self is the subject of thinking or consciousness and the public self is that of communicating. In English, the basic "egocentricity" lies in the public self, in which sense English is a public self-centred language; in Japanese, it lies in the private self, in which sense Japanese is a private self-centred language.

One might say that the notions of the locutionary subject and cognising subject used in Ikegami (2005) correspond, respectively, to the public self and private self. However, the reference range of the cognising subject is wider than that of the private self because, for example, the cognising subject can be linguistically encoded as part of the scene to be described, and is not necessarily

main-clause time and the time of the report (i.e. speech time), the point here is that it refers to the present moment.

the subject of thinking/construal, as indicated by the *me* in a sentence like *Vanessa is sitting across the table from me*. The private self is relevant only when his/her thinking or consciousness is reflected or implied in the text or utterance involved.[8] (In section 4, I will clarify another crucial difference between the cognising subject and private self with respect to the discussion about indirect speech.)

Now, let us examine how the distinction between public self-centredness and private self-centredness is related to the difference in tense structure between English and Japanese. The public self is by definition situated at speech time. Since English has tense forms with the speaker's t-viewpoint (i.e. a cornerstone causing speech time to be the base point for the choice of tense) involved in their tense structure, it can also be characterised as a public self-centred language in terms of its tense structure. In contrast, the private self is not necessarily situated at speech time, which suggests that it can be moved to a time other than speech time. Thus, the observation that Japanese does not have tense forms involving the speaker's t-viewpoint (i.e. the trigger for speech time orientation) enables us to characterise it as a private self-centred language.

Given this typological characterisation, as well as the observations made above, we can propose (13) as the default principle for the choice of tense in English and Japanese (cf. Hirose 1995, 2000):

(13) The choice of tense form is based on the time at which the public self is located in English, but on the time at which the private self is located in Japanese.

We will see in section 4 that this principle can be motivated by the differences between the linguistic systems of the two languages.

2.2 *A Model for Narrative Interpretation*

As another essential part of the framework, let us revise the interpretation model for third-person stories in English to cover first-person stories in English and Japanese by adjusting pairs of factors involved in narrative interpretation

8 The cognising subject also seems to serve as the viewpoint in the sense defined in section 2.2. For example, the red parts in the English text (i) reflect the viewpoint of the men expressed in the blue part.

(i) … She was very close now, close enough for the men to see every feature of her face. She was all ovals—oval-shaped eyes, the bones of her face, the contour of her brow … (M. Puzo, *The Godfather*, pp. 333–334)

The viewpoint involved is the men's and so they are cognising subjects, but their private selves are not relevant here. See Wada (2015: 314) for details.

and introducing the distinction between public self-centred and private self-centred languages. In the third-person story version of the model, I assumed pairs of factors—such as the narrator's perspective (i.e. way of thinking or viewing) vs. the character's perspective,[9] the viewpoint (i.e. a spatiotemporal point from which to "see" situations) at the time of narration vs. the viewpoint in the narrative now,[10] and the outer-world description (i.e. description of the situations or scenes surrounding the character) vs. the inner-world description (i.e. description of the character's mental world or thoughts)[11]—to characterise interpretive environments reflecting different linguistic behaviours, such as the presence or absence of deictic adverbials, scene-setting expressions, or subjective expressions.

However, we do not use the first pair mentioned above in the first-person story version because, as mentioned in section 1, the narrator at the time of narration doubles as a character in the narrative now. Instead, we adopt the pair of the public self and private self, two different aspects of one and the same speaker (i.e. the narrator as a character).[12] In addition, we need to introduce the distinction between present and past scenes as another pair of factors to deal with present scenes of first-person stories. Because the present and past scenes are located on the same time line in the same world, the narrator as a character can easily go back and forth between the two time zones and the reference to the present scenes is therefore more frequent in first-person stories than in third-person stories.

Considering the relevant pairs of factors mentioned above, I propose the following five interpretive environments for first-person stories:

(14) a. Environment 1: The narrator describes the outer world of the present scenes from the viewpoint at the time of narration; the private self is located at the time of narration in both English and Japanese.

9 The narrator's and the character's perspectives may correspond, respectively, to the external and the internal perspectives in the traditional narrative literature (Fludernik 2009: 37).

10 The notion of "viewpoint" here may correspond to Bal's (1985: 104) "focalisor", i.e. "the point from which the elements are viewed". Genette's (1980) "focalisation" represents the relationship between a focalisor and what is seen.

11 The outer world and the inner world may correspond, respectively, to what is "perceptible" and what is "non-perceptible" in Bal (1985: 109).

12 In English first-person stories, the public self and the private self may functionally correspond to Chafe's (1994) "acknowledged fictional representing consciousness" and "represented consciousness". The representing consciousness is the deictic centre for tense and pronoun, while the represented consciousness is the deictic centre "expressed by spatiotemporal adverbs" (p. 206).

b. Environment II: The narrator describes the inner world of the present scenes from the viewpoint at the time of narration; the private self is located at the time of narration in both English and Japanese.
c. Environment III: The narrator describes the outer world of the past scenes from the viewpoint at the time of narration; the private self is located at the time of narration in both English and Japanese.
d. Environment IV: The narrator describes the outer world of the past scenes from the viewpoint in the narrative now; the private self is located at the time of narration in English, but in the narrative now in Japanese.
e. Environment V: The narrator describes the inner world of the past scenes from the viewpoint in the narrative now; the private self is located in the narrative now in both English and Japanese.

These environments are cross-linguistically common and provide the same mechanism for interpreting/construing the relevant situations or scenes in English and Japanese except for the matter of public self-centredness vs. private self-centredness, which underlies the differences in tense choice between the two languages.

Some general comments are in order. There is no mention of the public self in (14) because it is, by definition, always fixed at the time of narration. The time of narration is the deictic centre of the present scenes, and the narrative now is the deictic centre of the past scenes.[13] Since the narrator doubles as a character, his/her viewpoint can be located either at the time of narration or in the narrative now. Both outer-world and inner-world descriptions are available in both present and past scenes.

Let us now observe the characteristics of the environments in more detail. Although both environments III and IV refer to past outer-world scenes, environment III constitutes the parts often following a break (cf. Ehrlich 1987: 371) and/or containing a scene-setting expression, such as a topic-changing or topic-introducing marker (Van Dijk and Kintsch 1983: 204), whereas environment IV constitutes the parts following environment III that do not include other scene-setting expressions. Once a past scene is introduced, the viewpoint of the narrator (as a character) is shifted to and fixed at a time in that scene unless a new scene is established. Consider, for example, (15):

13 Strictly speaking, the narrative now can share the same time with the time of narration in the case of present scenes, but for convenience's sake I use the term "narrative now" to refer only to the deictic centre of the past scenes.

(15) a. *Aru asa-no kuji sugi-ni, mō otoko-ga*
certain morning-GEN nine past-at already man-NOM
watashi-no-yado-ni tazune-te-ki-ta. … Honokurai yudono-no
I-GEN-inn-LOC visit-CON-come-PAST dim bathroom-GEN
oku kara, totsuzen hadakano onna-ga
back from suddenly naked woman-NOM
hashiridashi-te-ki-ta ka to omo-u to,
run out-CON-come-PAST Q QUOT think-Pres QUOT
datsuijō-no totsubana-ni kawagishi-e tobiori sōna
dressing room-GEN edge-LOC riverbank-to fly out as if
kakkōde tach-i, ryōte-o ippaini-nobashi-te
in the style stand-CON both arms-ACC widespread-CON
nanika saken-dei-ru. Tenugui mo nai mahadaka
something cry-PROG-PRES facecloth also not completely naked
da. Sore-ga odoriko dat-ta.
COP.PRES that-NOM dancer COP-PAST
(Y. Kawabata, *Izu no Odoriko*, p. 18)

b. The man came by my inn at nine the next morning … One small figure ran out into the sunlight and stood for a moment at the edge of the platform calling something to us, arms raised as though for a plunge into the river. It was the little dancer. (*The Izu Dancer*, pp. 15–16)

The blue parts constitute environment III because they follow a break and include a scene-setting expression, i.e. *aru asa no kuji sugini* or *at nine the next morning*. The remaining parts of (15)—including the omitted parts—refer to outer-world scenes that follow environment III and do not contain other scene-setting expressions, thus constituting environment IV.

In outer-world scenes, the narrator describes the situations surrounding himself/herself and behaves as if conveying them to the (presumed or anonymous) reader(s)/hearer(s) and so the aspect of the public self is foregrounded. In inner-world scenes, also known as free indirect speech and thought or interior monologue, the narrator represents his/her inner world or consciousness and the aspect of the private self is foregrounded. Due to the characteristics of first-person stories as a monologic cognitive activity, the narrator can easily switch from an outer-world description to an inner-world description and vice versa. Inner-world descriptions often contain emotional or exclamatory (i.e. subjective) expressions, i.e. those implying the narrator's mental world. To illustrate, consider (16), where (16a) is a past scene taken from an original English text, accompanied by (16b), its Japanese translation:

(16) a. At dinner (the pastries turned out to be merely a snack) Phil tried to have a serious talk with me about you-can-guess-what. For some crazy reason he thought he could effect a rapprochement between Olivers III and IV. (E. Segal, *Love Story*, p. 91)

b. *Yūshoku-no-toki (...), Fuiru-wa boku-to majimena-hanashi-o shiyōto*
dinner-GEN-when Phil-TOP I-with serious-talk-ACC try
shi-ta. Mattaku dōyūwakeka, kare-wa Oribā Sansei-to
do-PAST oh for some reason he-TOP Oliver III-with
Yonsei-to-o wakaisaseru-koto-ga-dekiru to omot-tei-ru
IV-with-ACC compromise-NML-NOM-CAN QUOT think-STAT-PRES
noda.
AUX[explanation].PRES
(*Aru Ai no Uta*, p. 99)

The red parts follow a break and contain *at dinner* or *yūshoku-no-toki* as a scene-setting expression, constituting environment III. The blue parts, which follow environment III, do not include another scene-setting expression. In the English text, the presence of an emotional expression *for some crazy reason* in the relevant part enables us to interpret it as environment V; the Japanese text includes a self-orientated, emotional expression *mattaku dōyūwakeka* and the situation-orientated auxiliary of explanation *noda*, i.e. the one used in mental utterances or interior monologues (Miyazaki et al. 2002: 232), so the relevant part constitutes environment V.

Last but not least, the public self-centredness of English causes the private self to stick to the public self at the time of narration in the English text as much as possible, but the private self-centredness of Japanese may dissociate them in the Japanese text more easily. This difference appears in environment IV. To illustrate, consider again the Japanese (15a) and its English translation (15b). In the parts other than the blue ones, the Japanese text contains the green part *to omou to* 'as soon as' (i.e. a grammaticalised expression with the verb of thinking *omou* 'think'), which reflects the speaker's subjective observation with the intention of conveying fear, surprise, and the like (Tanaka 2010: 265). This indicates the presence of the subject of thinking/construal, i.e. the private self. In contrast, the corresponding part in the English text does not include such a private self-evoking expression. In the present framework, the difference as to the presence of such an expression is attributed to the difference in the locus of the private self between English and Japanese. In English, the private self is located at the time of narration (i.e. outside the relevant past scene) even in environment IV and expressions indicating the presence of the private self

do not appear. In Japanese, the private self is located in the narrative now (i.e. inside the relevant past scene) and is "spotlighted" in that it occupies a different time position from the public self. Hence, such expressions can appear.

3 Analysis

Having constructed the framework, we can now consider the tense choice and interpretation in the five interpretive environments of first-person stories. I start with environment I. In the red parts of (7) and (8) above, which exemplify this environment, the narrator describes the situations in the outer world from the viewpoint at the time of narration. Because both the public and private self are located at the time of narration, principle (13)—introduced in section 2.1—correctly predicts that the choice of tense form is based on the time of narration in both languages, requiring present forms (e.g. *shall refer, is, consider*) in English and *-ru* forms (e.g. *uchiake-na-i, dea-ru*) in Japanese to refer to the situations at the time of narration in the present outer-world scenes.[14]

Let us next consider environment II, illustrated by the red parts of (17) and (18).

(17) How different they seem to be now. And how foolish I was ever to have thought that professors were intellectual giants. They're people—and afraid the rest of the world will find out. (D. Keyes, *Flowers for Algernon*, p. 69)

(18) *Imadewa karera-ga nanto chigatte mie-ru koto*
Now they-NOM how different seem-PRES NML
darō. Soshite kyōjuren-o chiseiaru kyojin to
AUX[presumption] and professors-ACC intellectual giant QUOT
omoikon-dei-ta jibun-no nantaru orokasa yo. Karera-wa tadano
think-PROG-PAST self-GEN how foolish SFP they-TOP only
hito nanoda. Soshite seken-ni sore-o
human AUX[explanation].PRES and world-by it-ACC
kizukareru-no-o osore-tei-ru.
be realised-NML-ACC be afraid-STAT-PRES
(*Arujānon ni Hanataba o*, p. 109)

14 Here I am assuming that the so-called future auxiliary *shall* or *will* is a present form.

Flowers for Algernon is a first-person story in the style of a progress report, and the time of writing a progress report is regarded as the time of narration.[15] The red parts refer to the narrator's interior monologue, which is indicated by the presence of the exclamatory sentence (i.e. the first red sentence) in (17) and its correspondent, i.e. the *nanto … koto darō* construction in the first red sentence as well as the situation-orientated auxiliary of explanation *nanoda* in the second red sentence in (18). Again, both the public and private self are located at the time of narration, and principle (13) thus requires English and Japanese to use present forms (i.e. *seem, are, will find*) and *-ru* forms (i.e. *darō, nanoda, osore-tei-ru*), respectively, to refer to the situations at the time of narration.

Next we move to environment III. This environment is illustrated by the blue parts of (15a) and (15b) above, which refer to past outer-world scenes. Here, the narrator describes the situations in the outer world in the narrative now (in the past) from the viewpoint at the time of narration, at which both the public and private self are located. Principle (13) correctly predicts that English and Japanese require past forms (e.g. *came*) and *-ta* forms (e.g. *tazune-te-ki-ta*), respectively, to refer to past scenes.

Now we consider environment IV. This environment is illustrated by the parts other than the blue parts in (15a) and (15b) above, where the private self is located at the time of narration in the case of English, but in the narrative now in the case of Japanese. Thus, due to principle (13), in English the choice of tense form is based on the time of narration (at which the public self is located) and past forms (e.g. *ran, stood, was*) are chosen to refer to the outer-world scenes in the past relative to the time of narration, but in Japanese it is based on the narrative now (in which the private self is located) and *-ru* forms (e.g. *saken-dei-ru, mahadaka da*) are chosen to refer to the outer-world scenes simultaneous with the narrative now. Note that only stative situations—described by the progressive form or stative predicates (including Langacker's (2008) "imperfective verbs")—can usually express simultaneity with the narrative now as the reference point because they are construed as homogeneous in time and hence can include that time.[16] The *-ta* forms *hashiridashi-te-ki-ta* and *odoriko dat-ta*

15 The time of narration itself advances in this fiction.

16 The *-ru* forms in (2)—an excerpt from a third-person story—i.e. *sankai-dea-ru* and *tome-tea-ru* occur in the third-person story counterpart of environment IV because the relevant parts follow the first sentence, including the scene-setting expression *senkyūhyakuroku-jūgo-nen* 'year 1965'. Hence, we can explain the use of the *-ru* forms in the same way that we do in the main text: Due to principle (13), *-ru* forms are chosen to refer to the situations that are simultaneous with the narrative now in this type of environment in Japanese third-person stories.

in (15a) do not constitute counterexamples to my analysis, but rather support it. Here, the narrator describes the relevant situations as if they had occurred just before the recognising time, i.e. the narrative now, in which the private self construes them. The *-ta* forms—expressing anteriority to the narrative now—are therefore chosen to describe such situations in accordance with principle (13).

Finally, let us look at environment v, illustrated by the red parts in (19) and (20):

(19) Jesus! Jenny would be waiting outside. I hope! Still! How long had I lingered in that comfort while she was out there in the Cambridge cold?[17]
(E. Segal, *Love Story*, pp. 17–18)

(20) *Shimatta! Jienī-ga sotode mat-te-ru hazuda. Nante koto*
Jesus Jenny-NOM outside wait-PROG-PRES should what NML
da! Dōka mada imasu yōni! Kanojo-ga Kenburijji-no
COP.PRES hope still be (polite) may she-NOM Cambridge-GEN
samusa-no nakade matte-te-kure-te-ta toiu
coldness-GEN inside wait-CON-AUX[beneficial]-PROG-PAST called
noni, jibun-wa mō donokurai kimochiyoku
though self-TOP now how long comfortable
nohohontoshi-te-ta-ndarō.
be indifferent-PROG-PAST-AUX[explanation.presumption]
(*Aru Ai no Uta*, pp. 23–24)

The relevant parts include exclamatory expressions, such as *Jesus* or *shimatta*, and thus refer to the narrator's past inner-world scenes; in both English and Japanese, the private self is located in the narrative now, but the public self is fixed at the time of narration. Principle (13) correctly predicts that to

17 It is another issue to explain why the present form *hope* is used in this environment. However, I tentatively assume that *I hope* here is a grammaticalised expression meaning 'hopefully' and serves as a kind of modal adverb (Yukio Hirose (personal communication)). This assumption may be supported by the fact that the expression in question is accompanied by an exclamation mark and is not followed by any NP or PP. If our assumption is correct, the mental attitude expressed by *I hope* can be attributed to the private self located in the narrative now, which is compatible with the characteristics of this environment. In any case, I leave a systematic analysis of the issue for future research.

refer to situations in the narrative now (which is located in the past relative to the time of narration), past forms (e.g. *would be, had lingered*) are chosen in the English text, but *-ru* forms (e.g. *hazuda, ndarō*) are chosen in the Japanese text.

We have observed that principle (13) accounts for the tense forms chosen in the five interpretive environments. Before closing this section, I briefly touch on how to interpret the tense forms. In each of the five interpretive environments, irrespective of the English or Japanese text, the tense forms are interpreted with respect to the time at which the viewpoint of the narrator is located: The viewpoint involved is located at the time of narration in environments I, II and III, and in the narrative now in environments IV and V. This is why the tense interpretation (including temporal relations between situations and the aspectual value of a situation, such as perfective vs. imperfective) is the same and therefore translatable between English and Japanese in the same interpretive environments.

4 Discussion: In Relation to the Three-Tier Model of Language Use

In the previous section, I showed that tense phenomena in English and Japanese first-person stories (especially their differences with respect to the choice of tense) are systematically analysed through the combined framework of tense choice and narrative interpretation, which involves the characteristics of English as a public self-centred language and Japanese as a private self-centred language. In this section, I demonstrate that the different characteristics of the two languages are motivated by Hirose's model of language use called the three-tier model of language use (henceforth, the three-tier model), which thus provides another piece of supporting evidence for the framework.

The three-tier model aims to explain general differences in linguistic systems, especially those of English and Japanese, with different combination patterns of the three "components" (called "tiers") necessary for language use: the situation construal tier, the situation report tier, and the interpersonal relationship tier. In the situation construal tier, the (potential) speaker construes a situation or scene and forms a thought based on it; in the situation report tier, the speaker conveys or reports the construed situation to the addressee (hearer), intending to make the latter understand the former's message; and in the interpersonal relationship tier, the speaker considers his/her social or psychological relationship to the addressee when engaged in communication.

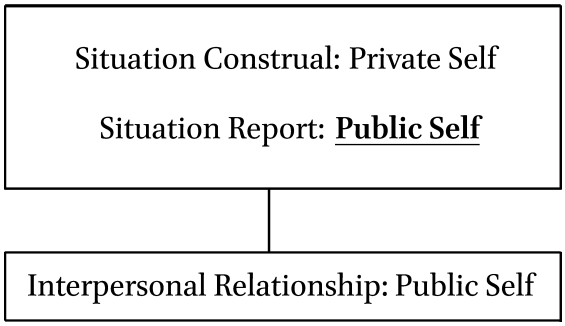

FIGURE 3.1 The English default model

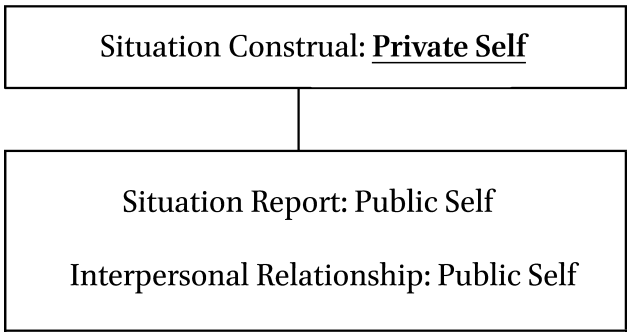

FIGURE 3.2 The Japanese default model

The default (combination) patterns of the three tiers in English and Japanese are, respectively, schematised in Figures 3.1 and 3.2, where the self highlighted with an underlined bold font indicates the default deictic centre.

English requires, as its basic pattern, that the situation construal tier be united with the situation report tier; they are included in the larger rectangle, as depicted in Figure 3.1. This means that in the default case of English, situation construal by the private self goes hand-in-hand with situation report by the public self, which in turn suggests that the "pure" representation of situation construal in the form of linguistic expressions is basically difficult and the public self is (more or less) involved in situation construal. In contrast, Japanese requires, as its basic pattern, that the situation construal tier be independent of the situation report tier; they are thus divided into different rectangles, as presented in Figure 3.2. This implies that in the default case of Japanese, situation construal tends to be independent of situation report. Hence, its "pure" representation in the form of linguistic expressions is easier. These observations enable us to motivate the characteristics of English as a public self-centred language and Japanese as a private self-centred language observed in the previous sections.[18]

18 This characterisation can be cancelled in non-default cases or marked environments (see

Due to space limitations, I only present several linguistic phenomena that support the unification of the situation-construal and situation-report tiers in English and their separation in Japanese.[19] A first phenomenon is the fact that the English (21) is easy to interpret as directed to the addressee when uttered, whereas the Japanese (22a)—a literal counterpart of (21)—as it stands is difficult to regard as directed to the addressee, and an addressee-oriented expression (such as the sentence final particle *yo*) is usually needed for such an utterance to be interpreted as directed to the addressee, as in (22b).

(21) Today is Saturday.

(22) a. *Kyō-wa* *Doyōbi-da.*
today-TOP Saturday-COP.PRES

b. *Kyō-wa* *Doyōbi-da-yo.*
today-TOP Saturday-COP.PRES-SFP(I tell you)

We might assert that uttering English sentences tends to be automatically a communication act given the unification of the situation-construal and situation-report tiers, and hence the public self's involvement. In contrast, uttering Japanese sentences tends to remain an expression of thought due to the separation of the two tiers (and therefore the non-involvement of the public self) without an addressee-oriented expression and without the help of paralanguage (such as gesture and tone) implying a communication mode.

Second, because the default level of linguistic expression in Japanese is the situation construal tier, Japanese basically requires the obligatory use of hearer/addressee-oriented expressions, such as certain sentence-final particles (e.g. *yo* 'I tell you' or *ne* 'you know') or hearsay expressions (e.g. (*da*)*sōda* or *rashii* 'I hear') for communicative purposes, and thus develops a variety of such expressions. In contrast, because the default level of linguistic expression in English is the combination of the situation-construal and situation-report tiers, English does not need to require the obligatory use of such hearer/addressee-oriented expressions, and hence does not have a richer system of hearer/addressee-oriented expressions. For example, the addition of *I tell*

Hirose et al. 2017 for details). The characteristics in question reflect basic tendencies of the linguistic systems of English and Japanese.

19 For more arguments supporting these different combination patterns as well as arguments for the unification of the interpersonal-relationship and situation-report tiers in Japanese, see Hirose (2013, 2015) and Hirose et al. (2017).

you—often regarded as a correspondent of the Japanese sentence-final particle *yo*—to (21) results in an awkward sentence as a neutral communication medium. This suggests that the English utterance (21) can automatically involve a communication mode—an involvement of the public self (cf. Ikarashi 2013).

A third phenomenon for the default combination patterns of the three tiers in English and Japanese concerns the behaviour of psychological predicates. Usually, one can only have access to one's own mental state. As we have seen, the default level of linguistic expression in Japanese is the situation construal tier—where the private self is the only deictic centre and thus featured (see Figure 3.2)—so psychological predicates only "express" the speaker's mental state, but not others' mental states, when used in the direct, unmodified form, as illustrated in (23). However, the default level of linguistic expression in English is the combination of the situation-construal and situation-report tiers, which allows the public self to be the default deictic centre and thus featured (see Figure 3.1); the grammar of English therefore treats mental states as being "reported" by the speaker as a public self and so psychological predicates in the direct, unmodified form can report the mental states of persons other than the speaker, as shown in (24).

(23) {*a. Boku/b. *Anata/c. *Kare*}*-wa kanashi-i.*
{I (male)/you/he}-TOP be sad-PRES
'{I/you/he} is sad.'

(24) {a. I am/b. You are/c. He is} sad.

Finally, let us consider the fact that the deictic centre for the choice of tense and personal pronoun is different between English indirect speech and its Japanese counterpart. Compare (25) and (26):

(25) Mary said that she was tired. (Enç 1996: 350)

(26) a. *Meari-wa jibun-wa tsukare-tei-ru to it-ta.*
Mary-TOP self-TOP be tired-STAT-PRES QUOT say-PAST

b. *Meari-wa jibun-wa tsukare-tei-ta to it-ta.*
Mary-TOP self-TOP be tired-STAT-PAST QUOT say-PAST

Before going further, we need to confirm two points. First, Enç (1996: 350) observes that (25) has a simultaneous reading—a reading in which the subordinate-clause time is simultaneous with the main-clause time—and a shif-

ted reading—a reading in which the subordinate-clause time is prior to the main-clause time. The shifted (i.e. anterior) reading is not possible with (26a), a Japanese counterpart of (25), but instead must be indicated by (26b). Second, Hirose (1995) assumes that indirect speech is a quotation of private expression (i.e. linguistic expression used for situation construal and thought expression), so in the complement clause of verbs of saying, the original utterance by the grammatical subject (i.e. reported speaker) is reduced to the level of private expression attributed to his/her private self. As was mentioned in section 2.1, this is a big difference between the private self and cognising subject; in Ikegami's (2005) terms, the original speaker of the indirect speech complement would be a locutionary subject.

Now we can explain the difference in question. Since English is a public self-centred language, deictic elements such as personal pronouns and tenses—related to the grammatical system of a language—are attributed to the reporting speaker as a public self even in private self-oriented environments such as indirect speech complements. This may be ascribed to the unification of the situation-construal and situation-report tiers as the default combination pattern of English, whereby the public self is featured. Thus, as shown in (25), the tense form involved is past, irrespective of the temporal relationship between the main and subordinate clauses, because the complement-clause situation obtains in the past relative to the time of the report, at which the public self is located. The personal pronoun *she* can refer not only to the reported speaker, but also to another female, because all it indicates is that the person involved is a third-person female from the viewpoint of the reporting speaker as a public self.

In contrast, as we have seen, Japanese is a private self-centred language, which derives from the default pattern where situation construal is independent of situation report and the private self is thus featured. Hence, both tenses and linguistic forms referring to persons (corresponding to English personal pronouns) are attributed to the reported speaker as a private self in the indirect speech complement. Thus, in (26), the non-past form *tsukare-tei-ru* refers to the same time as the time of the reported speaker's original utterance (at which the private self is located) and the past form *tsukare-tei-ta* refers to a time prior to the latter. In addition, private self-centredness enables Japanese to have a dedicated form for the private self, i.e. *jibun* 'self', in this private self-oriented environment.[20]

20 English does not have such a dedicated form for the private self, but has a special word for the public self, i.e. *I*. Thus, in indirect speech, i.e. a private self-oriented environment, such a special word must be converted into a pronoun corresponding to the grammatical

The linguistic behaviours explained above in relation to the three-tier model motivate the public self-centredness of English and the private self-centredness of Japanese, which in turn propel the framework for analysing tense phenomena in first-person stories with principle (13) and the characteristics of the interpretive environments in (14) above. Now I show how the tense phenomena of first-person stories examined in section 3 support the three-tier model, especially the unification of the situation-construal and situation-report tiers as the default pattern of English and their separation as the Japanese default pattern. As is clear from (14), even in a monologic cognitive activity such as first-person stories, the English text requires the narrator's public and private self to share the same time point, i.e. the time of narration, except for an inner-world description of past scenes, such as free indirect speech and thought or interior monologue (i.e. environment v). This may lend support to the default pattern of English because the unification of the situation-construal and situation-report tiers implies the unification of the private self as the subject of situation construal and the public self as the subject of situation report.

On the other hand, as we have seen, the Japanese text allows the private self to separate from the public self in more cases (see environment iv). Since Japanese is a private self-centred language, the position of the private self is much more sensitive to and affected by the characteristics of the relevant linguistic environment. Even in an outer-world description of past scenes, the private self is located in the narrative now, as such a description can be taken to constitute part of the personal experience of the narrator as a character at that time. This phenomenon thus supports the default pattern of Japanese, i.e. the separation of the situation construal tier from the situation report tier.

5 Conclusion

In this paper, I have provided a systematic analysis of tense phenomena, especially the choice of tense forms, of first-person stories in English and Japanese, i.e. a monologic cognitive activity. After having demonstrated that previous studies cannot fulfil our purpose in section 1, in section 2 I outlined the general theory of tense by Wada (2001, 2013, 2017) and developed the first-person

person of the private self. This also indicates the unification of the situation-construal and situation-report tiers as the default pattern of English, which features the public self. See Hirose (2000) for further discussion.

story version of the model for narrative interpretation in English and Japanese, constructing a framework for systematically analysing the tense phenomena in first-person stories.

In section 3, using the framework, I scrutinised the tense choice and interpretation in the five interpretive environments of first-person stories in English and Japanese: English as a public self-centred language requires the narrator to choose tense forms based on the time of narration, i.e. the time at which the public self is always fixed, whereas Japanese as a private self-centred language requires the narrator to choose them based on the time at which is located the private self, whose location varies depending on the characteristics of the environment involved. The reason why the "present" or *-ru* form occurs more often in Japanese texts than in their English counterparts is due to the interaction between the default principle with respect to the choice of tense form in (13) and the characteristics of the five interpretive environments in (14).

In section 4, I claimed that the characteristics of English, being a public self-centred language, and Japanese, being a private self-centred language, are motivated by the three-tier model, in which the unification of the situation-construal and situation-report tiers is the default pattern of English, while the separation of the two tiers is the default pattern of Japanese. As a result, this motivates the framework for analysing the tense phenomena in English and Japanese first-person stories. I also asserted that the successful analysis of the tense phenomena within the framework lends support to the three-tier model.

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CHAPTER 4

Time Updating Uses of the French Imparfait Extending Across Genres

Jakob Egetenmeyer

1 Introduction: Temporal Updates in Discourse

The French imparfait has been discussed extensively in the literature. An especially interesting case is when the imparfait contributes to the narrative structure of a discourse, i.e., when an eventuality denoted by a verb marked with the imparfait appears as dynamic and bounded. The phenomenon is often referred to as *imparfait narratif* (cf., e.g., Bres 1999; Bres 2005). This may be understood as cover term or a specific case among many. Sub-types may be distinguished, e.g., according to the position of the verb in a text (cf. Touratier 1996: 110 ff.), or to the specific genre in which they appear (cf. Labeau 2007: 220 for its use in reports of football matches). In the literature, several sub-types are also terminologically distinguished (cf. also Labeau 2005: 82 f. and the remarks in de Vogüé 1999). Apart from *narrative imparfait* there are, e.g., *imparfait de rupture, imparfait pittoresque, impressioniste, perspectif, bibliographique* (cf. Bres 2000: 59, 61 with further references), *en cascade* (Tasmowski-De Ryck 1985: 66), but also, e.g., *imparfait d'ouverture* (cf. Imbs 1960: 90; Eggs 1993: 12; see Section 3.3). Apparently, the terms diverge in their extension and some only apply to relatively few specific cases. What is more, some terms are intended as metaphors. This is not exempt of problems as metaphoric denominations may be more restrictive than the respective class would need them to be, especially because of the connotations a term has. Apart from terminological issues and the question of subtypes, the narrative imparfait has been treated in different ways placing the focus on a wide range of properties or even stylistics (cf. Berthonneau and Kleiber 1999; Bres 1997; 1999; 2005; Gosselin 1999; Labeau 2005; Molendijk et al. 2004; Patard 2010; de Saussure and Sthioul 1999; Schrott 2012; Tasmowski-De Ryck 1985; Vetters 1996; etc.).

In the present article, we show that there is not one but a family of dynamically used imparfaits. We consider typical cases but also others which are hardly mentioned in the literature. The property our account takes to be central is the potential to update narrative time. It is shared by the different uses.

It is widely accepted across different theories that temporal update is essential for narratives. It is a core concept in different accounts of text and discourse linguistics (cf. Partee 1984; Hinrichs 1986; Kamp and Reyle 1993; Smith 2003; von Stutterheim and Klein 1989; etc.). The Romance languages and especially French have often been used as examples, because they allow for a sophisticated temporal discourse structuring on the basis of tense-aspect forms. Usually, it is the passé simple which is described as the tense-aspect form with time updating potential par excellence and *not* the imparfait. What is more, the two forms are often distinguished based on this property as in the following often-quoted example pair taken from Kamp and Rohrer (1983: 253):[1]

(1) *Pierre entra*$_{PS}$. *Marie téléphona*$_{PS}$.
'Pierre came in. Marie called someone.'

(2) *Pierre entra*$_{PS}$. *Marie téléphonait*$_{IMP}$.
'Pierre came in. Marie was talking on the phone.'

Example (1) contains two sentences in which the verbs are marked by the passé simple. They express a sequence of eventualities. It is the standard updating case. By contrast, in (2), the verb denoting the second eventuality is marked by the imparfait. It is interpreted as holding at the same time as the first eventuality. Therefore, time is not updated. This exemplifies the typical division of tasks between the passé simple and the imparfait in narrative texts (cf. Kamp and Rohrer 1983). The imparfait is used for temporally parallel and backgrounded eventualities while the passé simple typically expresses a NARRATION relation in terms of rhetorical relations (cf. Asher and Lascarides 2003).

The imparfait uses we mentioned above do not adhere to this template. They may, in fact, update time as the following example shows.

(3) *Le lendemain, Jean* ***donnait*** *sa démission et* ***partait*** *pour Paris.* (Labelle 2003: 165)
'The next day, John handed in his resignation and left for Paris.' (Labelle 2003: 165)

1 In the example pair, two simple glosses for the French tense forms are used: PS for passé simple (perfective past, i.e., simple past) and IMP for imparfait (imperfective past).

Example (3) shows a narrative use of the imparfait. Here, and especially for the first of the two verbs, the denomination *imparfait de rupture* (see above) fits well. The example contains two verbs marked by the imparfait. To determine the value of the first verb (*donnait*, 'handed in'), the role of the adverbial expression still needs to be discussed (see Section 2). The second imparfait verb, *partait* ('left'), clearly expresses an eventuality following the one denoted by the first verb. It updates time in a similar way as the passé simple form in (1). The present article describes such uses of the imparfait. Its special stance is the focus on the function of a temporal update. The temporal update is a discourse property that is semantically unequivocal. It enables us to consider a broader range of imparfait uses than the ones usually included in such descriptions. Their specific differences will be discussed and compared. They differ with respect to the rigidity with which a set of properties applies or does not apply to them. Interestingly, the rigidity shows an inverse correlation with the distribution of the respective uses across text types. I.e., the uses with the more rigid configuration are found in a greater amount of different text types.

The article is structured as follows. In Section 2, we give an overview of the account by Becker and Egetenmeyer (2018a) as the present approach is based on certain parts of it. Importantly, the major focus lies upon the level of temporal relations. The level of perspective is also considered. In de Saussure and Sthioul (1999), Sthioul (2000) and others, it is a central element as deviant tense-aspect uses are motivated by a shift in perspective. The present contribution, however, has a different aim. Section 3 is dedicated to the data description. The main section presents, on the one hand, the corpora we used and, on the other hand, the properties of the imparfait we consider. The subsections discuss the different types of imparfait uses and their special properties. In Section 4, the types are summarized. The section also relates the configurational variability of the types to their availability in certain text types.

2 The Account (Becker and Egetenmeyer 2018a): Updates and Prominence

We approach the imparfait based on the conception of temporal discourse structure of Becker and Egetenmeyer (2018a).[2] The present section lays out the

2 For details of the account we cannot cover here, the reader is referred to Becker and Egetenmeyer (2018a) and Egetenmeyer (2021: Section 3).

ingredients of the account which we need here. At its centre are the temporal relations between eventualities and times in discourse. It supplies us with tools to determine temporal updates and provides a category to distinguish different uses which has hardly been considered in descriptions of the imparfait up to now, namely, prominence.

To evaluate the temporal update, we need to have a closer look at the first level mentioned above, namely, the relations between times. In what concerns this level, the account builds, inter alia, on Discourse Representation Theory (DRT) as presented by Kamp and colleagues (cf. Kamp and Rohrer 1983; Kamp and Reyle 1993; Kamp, van Genabith, and Reyle 2011; etc.). There, five different—partly descriptive—types of times are distinguished: the moment of speech (*n*), eventuality time (*e*), location time (*loc*), reference time (*R*), and perspective time (*PT*). The moment of speech is intended in its standard definition ignoring possible definitional problems. The eventuality time, sometimes also called run-time of an event, is defined by Bary (2009: 31) as "the time [eventualities] actually take up". The location time is "the asserted temporal reference of an eventuality" (Becker and Egetenmeyer 2018a: 36). It may be made explicit by adverbial expressions (cf. Kamp and Reyle 1993: 611). The reference time may be considered a descriptive tool determining the point in time a narrative has reached when, e.g., a certain eventuality is asserted (cf. Kamp, van Genabith and Reyle 2011: 199; Kamp 2013: 119). The perspective time is a temporal vantage point from which one or more eventualities are viewed (cf. Kamp 2013: 116).

The account of temporal discourse structure by Becker and Egetenmeyer (2018a) considers three different levels of structuring. They are relevant for the description of temporal relations and tense use in discourse. The levels are, (i) the relations between times (time points and intervals), (ii) the temporal perspective, and (iii) the partitioning of discourse into foreground and background as well as into story lines. According to Becker and Egetenmeyer (2018a), there are two ordering dimensions of the eventualities and time points which hold on all three levels: One dimension is temporal, in the sense of the "linear" development of time, the other one is hierarchical. The hierarchy of eventualities and time points is spelled out in terms of prominence in the sense of Himmelmann and Primus (2015: 44 f.) who define it as the property of entities to stand out from among sets of equal entities (see below).

Several further details are of relevance. First, the relation between the eventuality time and the location time determines the aspectual nature of an inflected verb. In the case of a perfective form, the eventuality time is included in the location time, while the inverse inclusion relation yields imperfective aspect (cf. Kamp and Reyle 1993: 536; Becker and Egetenmeyer 2018a: 36 with further

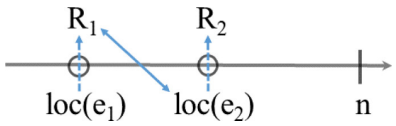
references). Second, a clarification by Becker and Egetenmeyer (2018a: 37) concerning the formalization is that it is the location time which introduces the reference time. Third and most importantly, the reference time is decisive in the description of the temporal development of a text (cf. the arguments to use the concept in Becker and Egetenmeyer 2018a: 37). It enables us to show whether the temporal relations expressed by a verb phrase in context involve a temporal update or not. Simply put, whenever a new reference time is introduced, the narrative time is updated. Our example pair from Section 1 illustrates this.

(4) *Pierre entra*$_{PS}$. *Marie téléphona*$_{PS}$.
'Pierre came in. Marie called someone.'

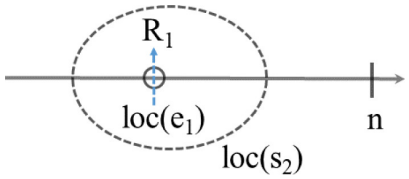
(5) *Pierre entra*$_{PS}$. *Marie téléphonait*$_{IMP}$.
'Pierre came in. Marie was talking on the phone.'

The visualizations (A) and (B) use the style introduced in Becker and Egetenmeyer (2018a) which is a further development of the illustrations by Kamp and Rohrer (1983).

(A)



(B)



In both cases, the eventualities are presented in past tense. Therefore, their representations are left of the time of speech (n). As said, via the asserted time for the eventuality (location time, *loc*) the reference time (R) is introduced. This holds for the first event of both examples (4 and 5, and A and B, respectively). However, as (A) shows, the location time of the second eventuality in example (4) follows the reference time of the first eventuality. It introduces a new reference time (R_2), i.e., it updates time. This is not the case in (B). The verb marked by the imparfait in (5) expresses a state (cf. Kamp and Rohrer 1983: 253, abbreviated *s*).[3] The respective location time ($loc(s_2)$) takes the reference time

3 This classification is a simplification which may be criticized. The imparfait uses we analyze in the present contribution do not fit into the classification.

which has already been introduced in the mini-discourse (R_I), including it into its extension. Thus, there is no temporal update. Narrative time stands still. As said, the imparfait uses we treat in the present article diverge from this standard case and may indeed update time (see Section 3). Thus, it is not only the prototypical perfective tense-aspect forms (like the passé simple) which "carry the story forwards" (Kamp, van Genabith, and Reyle 2011: 196), but sometimes also the imparfait.

Prominence value is a relational property that can be determined, in principle, in any kind of time point or interval. It is evaluated relative to other time points of the same type (cf. Himmelmann and Primus 2015: 44 f., see above) which are part of one and the same domain (cf. Himmelmann and Primus 2015: 38; Becker and Egetenmeyer 2018a: 45 ff.). As Becker and Egetenmeyer (2018a) and Egetenmeyer (2020a) show, the different applicable prominence values are at least the following: maximally prominent, relatively high prominence, equal prominence and minimal prominence within a domain. The type of time point whose prominence value is of most interest here is, again, the reference time because of its relevance in the narrative progression. Additionally, the prominence values of the location times of some adverbial expressions are determined in the analysis because of their role in the temporal structuring of a discourse.

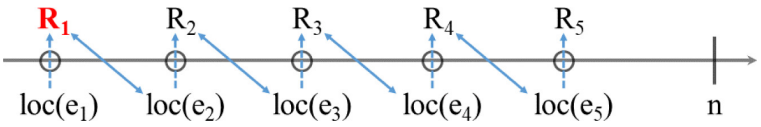
As Himmelmann and Primus (2015: 44) state, prominent discourse entities "serve as anchors around which experience is organized". In Becker and Egetenmeyer (2018a) and even more clearly in Becker and Egetenmeyer (2018b), it is shown that, on these grounds, the prominence value of time points can in certain cases be determined quantitatively. This is relevant for a first-mentioned time point. The following example shows this.[4] The extract, even though not unrelated to the preceding context, may be considered the beginning of a new sub-episode (cf. Smith 2003: 259 for a basic definition of the episode).

(6) [1] *Le jeune marin sauta dans le canot,* [2] *alla s'asseoir à la poupe,* [3] *et donna l'ordre d'aborder à la Canebière.* [4] *Deux matelots se penchèrent aussitôt sur leurs rames,* [5] *et l'embarcation glissa aussi rapidement qu'il est possible de le faire au milieu des mille barques* [...]. (Frantext: Alexandre Dumas père, *Le Comte de Monte-Cristo*, 1846, p. 13)
'[1] The young sailor leapt into the boat, [2] seated himself in the stern [3] and gave the order to row across to the Canebière. [4] Two sailors imme-

4 Becker and Egetenmeyer (2018a: 49) discuss an example taken from Kamp and Rohrer (1983: 258), which yields a more complex prominence structure.

diately bent over their oars [5] and the vessel proceeded as fast as it could, among the thousand small boats [...].' (Alexandre Dumas père, *The Count of Monte Cristo*, 2003, p. 15)

The example presents a sequence of eventualities which are narrated with the passé simple. The narrative time is continuously updated. This can be shown with the visualization (C).[5]

(C) 

What is of interest for us here is that there is one reference time all other time points directly or indirectly depend upon, R_1. It is the most important anchor in the extract. Therefore, in line with Becker and Egetenmeyer (2018a), we define it as the most prominent time point within the domain. The other reference points are not ranked further in the same way. Their quantitative difference in anchoring relations is not relevant as it does not contribute to the temporal structure beyond the relationship of mere sequence. Thus, they are taken to be equal per default (cf. also Becker and Egetenmeyer 2018a: 49).

Further factors for a relatively high prominence value are the extension and/or the explicitness of a time point or interval. For example, a temporal adverbial expression may mark a relatively prominent time span (cf. Becker and Egetenmeyer 2018a: 48). It may express a precisely determined temporal interval which due to its extension can include several other time points (cf. Becker and Egetenmeyer 2018a: 48). By contrast, also a relatively short extension may in certain cases lead to a high prominence value of the respective time point (cf. Egetenmeyer 2020b, following Hopper and Thompson 1980). Time points with low prominence have been introduced in Egetenmeyer (2020a) and will be discussed in Section 3.4.

Besides the level of relations between time points and intervals, also the conception of the level of temporal perspective is of interest here. The temporal perspective time (*PT*) is a vantage point "from which a certain eventuality or a sequence of eventualities are seen" (Becker and Egetenmeyer 2018a: 51). The perspective taker plays an important role in its conception. In standard discourse, the perspective taker is the narrator, but the perspective may also be

5 A possible slight diversification in terms of temporal proximity between the involved eventualities is ignored in the visualizations.

shifted to a protagonist, e.g., in free indirect discourse (cf., e.g., Banfield 1982 to whom many publications refer; cf. Hinterwimmer 2017 for a distinction of free indirect discourse and a second type of perspective shift called viewpoint shift). In the context of tense and aspect, including special imparfait uses, the perspective shift has been discussed convincingly, e.g., in de Saussure and Sthioul (1999), Sthioul (2000) and de Saussure (2013). As Sthioul (2000: 84) shows, an imparfait which does not meet the expectations may be an instruction for the reader to perceive a shift in perspective towards a text-internal source (cf. also the application of Sthioul 2000 in Becker, Egetenmeyer, and Hinterwimmer 2021). According to Sthioul (2000: 85 ff.), this can be generalized to many or even all updating uses. Now, as already stated, the contribution at hand is concerned specifically with the temporal structure of text. We do not focus on the reasons for tense choice, which, by contrast, would involve the correlation with perspective. Still, we want to point out a challenge which would need further consideration when merging both stances. It is the question how temporal development involving perspective shifts can be properly accounted for.

To solve it, we need to consider basic conceptions of the account. Importantly, the temporal perspective is not independent but rather forms part of a narrative structure. A perspective time point (*PT*) itself also needs to be localized and this is done with the same (linguistic) means as other types of time points, especially verbs, tense-aspect forms and adverbs with the additional mediating force of rhetorical or discourse relations. Therefore, we suppose that it is not located freely in the temporal structure corresponding to a text but that it shares its temporal determination with another time point. More specifically, according to the present conception of our account, PTs share their temporal location with specific reference times or location times (cf. Egetenmeyer 2021). The reference time and the perspective time are independent (descriptive) entities and do not substitute one another.[6] This becomes especially relevant when extended text segments are considered. On the one hand, we then still need to account for textual development, which is typically done on the grounds of the concept of the reference time (*R*). On the other hand, there are three possibilities what may happen to the perspective time in such cases. Namely, the perspective time may be maintained, shifted back to the narrator's origo, or it may share the temporal development with the reference time. In the description of longer text passages this would need to be accounted for. The third possibility according to which the perspective time is updated together with the reference time, e.g., seems to be the most feasible description

6 Such a replacement of the reference time with the perspective time in perspectivised con-

of the imparfait in sports reports (see Section 3.5 for an example) if it were to be described with a shifted perspective. Sthioul (2000: 89) mentions said text type when arguing for perspective shifts, but does not go into the details of a development of the perspective time.

3 Analysis of the Different Types of Updating Imparfait Uses

The aim of this contribution is to elaborate a new categorization of imparfait uses. As we will see, there is a tendency of certain uses to occur more often in one text type than in another. It seems that we can motivate some correlations on the basis of our systematics. Before presenting the detailed analyses, we want to briefly mention the corpora we used and the categories we apply to distinguish the different uses.

For the present analysis of the imparfait, a wide array of data had to be considered. We used different corpora to pin down the different uses in the best manner. Most importantly, we studied written narrative texts and newspaper articles. For written narrative texts, we used Frantext. One set of queries was restricted to texts published between 1980 and 1990. An additional one concerned verbs of movement in texts from the years 2006 to 2010. Furthermore, we did a specific study on Camus, *L'Étranger*, partly presented in Egetenmeyer (2020a). Concerning newspaper articles, we particularly focused on the subject of politics and on sports reports and controlled for it mostly based on the lexical items we searched for. We used the Emolex corpus and the Timestamped JS1 web corpus included in Sketch Engine to collect relevant occurrences from newspapers. We looked for the subject of politics specifically in the Emolex corpus and used both corpora for sports reports. In the case of the sports reports, we augmented our data. We sought to replenish the reduced range of surrounding words retrievable from the data bases by looking for the article in the free internet (via www.google.de). In several cases, we were able to find the respective whole article and applied our principles to it.

texts is assumed, e.g., in de Saussure (2013: 53). He suggests a replacement with a secondary perspective time S′ (cf. de Saussure 2013: 53), which is similar in nature to the moment of consciousness C attributed to a protagonist put forth in de Saussure and Sthioul (1999). We do not intend to criticize their account, but rather want to delimit ours properly. Importantly, their aim is different from ours. They determine an interpretational procedure (cf. de Saussure and Sthioul 1999 and following publications) while we focus on (temporal) relational properties of certain imparfait uses within a text. This entails differences in the operationalization of terms.

We focus on a broad set of structural properties to compare the different uses in a detailed manner. (i) The basic property for an imparfait use to enter our investigation is to update narrative time (see Section 2). The other properties are diverse. (ii) We examine the syntactic status and the cotext. The relevant distinctions are whether the form is embedded temporally or contextually and if a co-occurring adverbial expression is necessary. (iii) The local textual specifics are important. Here, we focus essentially on the "degree" of sequentiality. We consider whether there is more than one updating imparfait in sequence and if the temporal reference of the imparfait in question overlaps with the time of another eventuality. (iv) We evaluate the prominence status (see Section 2). (v) We also consider the semantics of the verb in question, i.e., its *aktionsart*, especially its telicity. On these grounds, we are able to distinguish different imparfait uses in a new manner. Finally, (vi) we determine the distribution of the use across text types.

In the sub-sections below, the following types are described. We begin with the typical narrative imparfait already mentioned in Section 1. We call the second type non-typical narrative imparfait. It shares only certain properties with the first one. We continue with the date-setting imparfait. The fourth kind is the narrative progressive without explicit features, which is introduced in Egetenmeyer (2020a). The final imparfait use is a special sub-case of the second one. It is a non-typical narrative which occurs in sports reports.

3.1 *The Typical Narrative Imparfait*

The typical narrative imparfait is the updating use that has received most attention in the literature. It is most frequent in, but not restricted to, written narrative texts (cf., e.g., Schrott 2012: 149; Labeau 2006). We already saw an example taken from Labelle (2003: 165) which is repeated below.

(7) *Le lendemain, Jean* ***donnait*** *sa démission et* ***partait*** *pour Paris.*
'The next day, John handed in his resignation and left for Paris.'

In Section 1, we focused on the second imparfait, *partait* ('left'). Its realization is only an option. Still, it shows that in such a structure, there may occur events in sequence which do not overlap temporally. The first verb, *donnait* ('handed in'), is the central case of this class of imparfait uses. Several of its properties have been summarized by Vetters (1996: 128), Bres (2005) and others. Importantly, it typically marks a telic verb (cf. Bres 1999: 5) and occurs after a temporal adverbial expression (cf., e.g., Vetters 1996: 128). As Labelle (2003) shows, it is a sentence adverbial. Thus, in this use the imparfait may be described as temporally embedded. The adverbial expression contributes to the sense implied

by the quite frequent denomination "imparfait de rupture" (cf. Tasmowski-De Ryck 1985; Berthonneau and Kleiber 1999; etc.), namely, the one of an "effet de discontinuité temporelle" (de Vogüé 1999: 2, 'effect of temporal discontinuity'). This is shown in example (8).

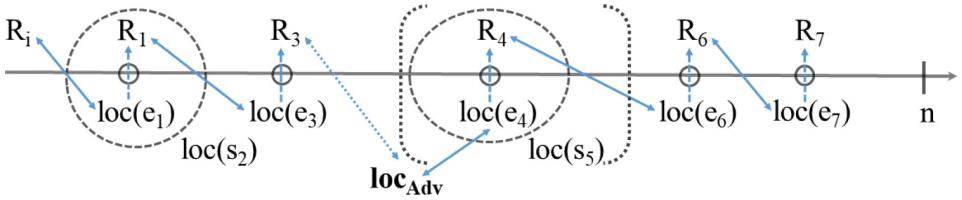
(8) *Ils se rencontrèrent en juin ; **trois mois plus tard**, ils se **mariaient**.* (Berthonneau and Kleiber 1993: 57)
'They met in June. Three months later, they got married.'

The discontinuity, in turn, paves the way for a semantical embedding as own (micro-) episode as described by Molendijk et al. (2004: 293f.). This possible reading is available in (8), but becomes clearer in longer passages like in (9) below. There, the extract is also the end of a chapter.

(9) [1] *Jacquemort s'éloigna.* [2] *Au bout de la place, une rue transversale semblait comporter plusieurs échoppes.* [3] *Il se dirigea vers elles.* [4] ***Quelques minutes plus tard**, il **entrait** chez le menuisier.* [5] *Il se sentait troublé, mal à l'aise.* [6] *La porte se referma sur lui* [8] *et il attendit.* (Frantext: Boris Vian, *L'Arrache-cœur*, 1953, p. 51)
'[1] Jacquemort walked away. [2] At the far end of the square, a side street seemed to house some shops. [3] He headed in that direction. [4] Several minutes later, he entered the carpenter's. [5] He felt confused, uneasy. [6] The door closed behind him [7] and he waited.'

The example can be visualized as in (D) which also helps to determine the last missing piece of insight, namely, the prominence value.

(D)



The extract is not interpreted as an entire episode. Therefore, the first location time ($loc(e_1)$) is visualized as being anchored to a preceding time point (R_i) and the first reference time (R_1) is not maximally prominent. Sentences [1] to [3] express a sequence of events with an intervening description in sentence [2] ($loc(s_2)$). In sentence [4], the narrative imparfait occurs. The adverbial *quelques minutes plus tard* ('several minutes later') in [4], expresses a temporal gap, i.e., the discontinuity mentioned above, and introduces a time inter-

val within which the eventuality *entrait* ('entered') is realized. Narrative time advances and thus, the respective location time ($loc(e_4)$) introduces its own reference point (R_4). Sentence [5] expresses that R_4 is temporally included by another state ($loc(s_5)$). The location time of the following event ($loc(e_6)$) is also anchored to R_4. Clause [7] contributes another update.

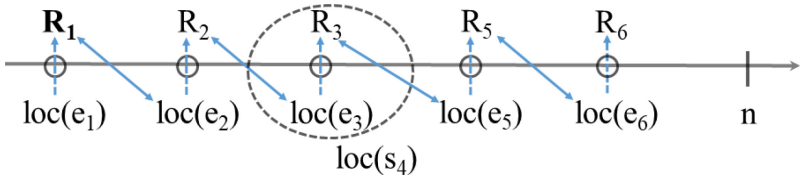
As we see here, the only time with an elevated prominence value is the location time of the adverbial expression (loc_{Adv}). This is due to its explicitness and the temporal gap introduced by it. The reference time introduced by the imparfait (R_4) is of equal prominence to the other time points. This is the default case (see Section 2).

3.2 *The Non-typical Narrative Imparfait in Literary Texts*

Cases of non-typical narrative imparfait are only seldom quoted and if mentioned, they are usually not differentiated from the typical one. Quite often, the use is simply ignored. An exception is Verine (2007: 80) who calls it an "occurrence non prototypique d'imparfait narratif" ('non-prototypical instance of the narrative imparfait'). Like the typical narrative imparfait, it expresses eventualities in sequence without temporal overlap, thus, again paralleling the passé simple. The sequentiality is normally achieved through telic verbs. It differs from the typical narrative imparfait in the lack of an adverbial expression. Due to this property, it is temporally not embedded as (10) shows.

(10) [1] *Je payai en francs Poincaré* [...]. [2] *Nous nous* ***levions***. [3] *Nous* ***sortions*** *sur la place de la Madeleine, encombrée de taxis* [...]. [4] *Le ciel était gris.* [...] [5] *Nous* ***suivions*** *la rue Royale* [6] *et nous* ***descendions*** *vers la Concorde, bourrée de gardes mobiles*. [7] —*Qu'est-ce qui se passe? me dit Javier*.
(Frantext: Jean d'Ormesson, *Tous les hommes en sont fous*, 1986, p. 159)
'[1] I paid with gold francs. [2] We got up. [3] We went out on the Place de la Madeleine, which was blocked up with taxis. [4] The sky was grey. [5] We followed the Rue Royale [6] and went down in direction of the Place de la Concorde, which was filled with policemen. [7] What's going on?, said Javier to me.'

The extract predominantly expresses a sequence of events even though the verb forms in clauses [2], [3], [5] and [6] are marked by the imparfait. There are no signs of temporal or contextual embedding. Again, the prominence values of the involved reference points are equal per default. This is visualized in (E).

(E) 

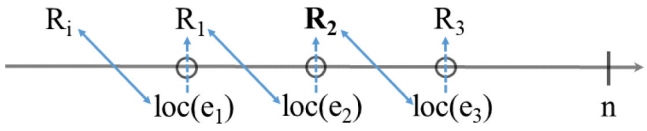
The use occurs in narrative prose (see, by contrast, the sub-type described in Section 3.5). It may in part be an individual preference of certain authors, e.g., of Patrick Modiano (cf. Patard 2010); we also found several cases in Jean d'Ormesson and Christine Angot. The use is expected to be of paramount interest for the multifocal account by Judge (1998). The speech verbs mentioned by Vetters (1994: 219) may also be considered to belong to this kind.[7]

3.3 *The Date Setting Imparfait*

We call the third use date setting imparfait. It is not properly carved out in the literature either. It appears together with an adverbial expression specifying its temporal location but it is not embedded under it. This is shown in (11).

(11) [1] *L'Afssa a rendu quatre avis datés de 2001, 2003 et 2006 sur les boissons contenant* [...] *la taurine* [...]. [2] *Oubliant les avis de l'Afssa* [...], *Christine Lagarde, ministre de l'économie,* ***décidait*** *il y a quelques semaines d'ouvrir les frontières françaises au Red Bull.* [3] *Avec un raisonnement strictement inverse, Roselyne Bachelot, ministre de la santé, a choisi d'appeler au boycott de cette boisson* [...]. (Emolex: *Le Monde*, 13.08.2008, *Analyse; Lorsque la science est muette*)
'The Afssa handed in four notifications in 2001, 2003 and 2006 on drinks containing taurine. Forgetting the notifications of Afssa, Christine Lagarde, minister of economy, decided to open the French borders for Red Bull a few weeks ago. With a completely contrary reasoning, Roselyne Bachelot, minister of health, decided to call for a boycott of this drink.'

(F) visualizes the sequence of events expressed in the example. As the phrase *il y a quelques semaines* ('a few weeks ago') only specifies the temporal location of *décidait* ('decided'), it does not receive its own location time.

(F) 

7 However, this cannot be generalized. Speech verbs marked by the imparfait may also have progressive value.

Further properties of this use are that it does not co-occur with other imparfaits expressing a sequence. Its location time does not overlap with the one of other eventualities.

The property of being embedded neither temporally nor contextually distinguishes it from the "imparfait d'événement" (Touratier 1996: 117, see ex. 12) and its subtype, the "imparfait d'ouverture" (cf., e.g., Berthonneau and Kleiber 1999: 2; Bres 2005: 136 f.; see ex. 13) which are both embedded under an expression of temporal location.

(12) *En 1802, **naissait** à Besançon Victor Hugo*. (Touratier 1996: 117)
'In 1802, Victor Hugo was born in Besançon.'

(13) *Il y a vingt-cinq ans **mourait** Franklin Roosevelt*. (*Figaro Littéraire*, 1979, cited after Berthonneau and Kleiber 1999: 2)
'Twenty-five years ago, Franklin Roosevelt died.'

Another distinctive property of the date setting imparfait is that its prominence value is relatively high (see F, where R_2 is in bold). This is due to the mentioned temporal specification (cf. also Egetenmeyer 2020b). By contrast, in the case of the imparfait d'événement (see, e.g., ex. 12), the adverbial expression is more prominent than the reference time of the imparfait. We found the date setting imparfait in news on politics and in non-fictional literature. In the queries, we were able to pin it down with a restricted set of verbs of "political acts" which were all telic.

3.4 *The Progressive With Narrative Features Without Explicit Marking*

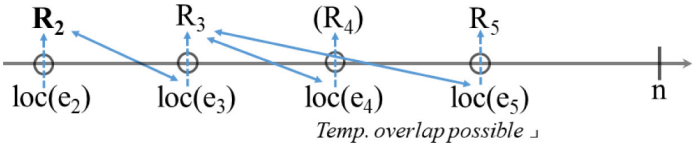
The progressive with narrative features without explicit marking is a special use that is first described in Egetenmeyer (2020a). The study analyses the updating imparfait in Camus' *L'Étranger* (cf. Egetenmeyer 2020a). The narrative progressive without explicit marking is especially interesting because the reference time it introduces is of low prominence value (minimal in the domain) and does not function as an anchor (cf. Egetenmeyer 2020a). Furthermore, it occurs without an adverbial expression indicating the update and it is neither temporally nor contextually embedded. The example (14) and its translation are taken from Egetenmeyer (2020a).

(14) [1] *Moi, j'ai seulement senti qu'il commençait à m'ennuyer*. [2] *Je me suis détourné à mon tour* [3] *et je suis allé sous la lucarne*. [4] *Je m'**appuyais** de l'épaule contre le mur*. [5] *Sans bien le suivre, j'ai entendu qu'il recommençait à m'interroger*. (Camus, *L'Étranger*, 1942, p. 178)

'[1] Me, on the contrary, I only felt that he began to annoy me. [2] Now I turned away [3] and I walked over underneath the little window. [4] I leaned (was leaning) my shoulder against the wall. [5] Without really following him, I heard that he started questioning me again.']

The corresponding visualization (G) is also taken from Egetenmeyer (2020a).

(G)



The visualization (G) starts with the second sentence, which is seen as the beginning of a sub-episode. Thus, R_2 is relatively prominent (and shown in bold). The temporal update between [3] and [4] becomes apparent as the character cannot lean against the wall before reaching it. The brackets around R_4 indicate its reduced prominence value. Importantly, the location time of the following eventuality ($loc(e_5)$) does not take R_4 as its anchor but rather "skips" it and refers back to R_3. Therefore, the hearing (*ai entendu*, [5]) may temporally overlap the leaning (*appuyais*, [4]). Due to the two properties of the reduced prominence value and the possible temporal overlap, a sequence of several imparfaits of this kind is not probable.[8] This type is instantiated by movement and visual perception verbs, which are mostly atelic (cf. Egetenmeyer 2020a).

3.5 *The Non-typical Narrative Imparfait in Sports Reports*

The second type of non-typical narrative imparfaits occurs in sports reports. It has been described, e.g., by Labeau (2004; 2007) and Labeau and Engel (2005). It shares the properties of not being temporally embedded and of not (necessarily) co-occurring with temporally locating adverbs with the type discussed in Section 3.2 (cf. Labeau 2004: 144 for a slightly diverging opinion). However, as it is a specialty of sports reports, it has a genre restriction. It may express full-fledged sequentiality. The following example is the beginning of a newspaper article which contains 21 finite verbs of which 17 are marked by the imparfait. Several of them update narrative time, but only some co-occur with precise temporal specifications (e.g., *10e*, '(in the) tenth (minute)' in clause [1], cf. also

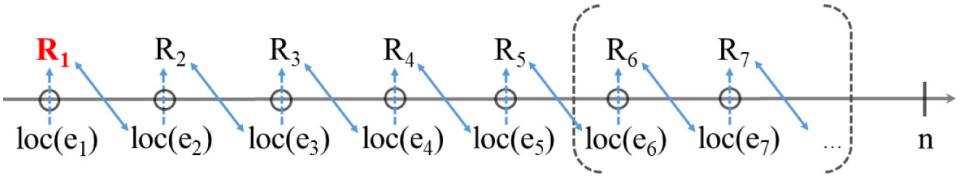
8 In the data set, there is not more than one progressive with narrative features in a row (cf. Egetenmeyer 2020a). By contrast, other types of imparfaits, e.g., descriptive ones, may relatively easily follow imparfaits of this kind.

Patard 2007: 313). The extract only contains one finite verb that is not an updating imparfait (*est*, 'is', in [8]). We also call this kind the generalized updating imparfait.

(15) [1] *Le Blésois Gonçalves* ***était*** *le premier à se mettre en action (10e),* [2] *mais sa frappe* ***passait*** *juste à côté.* [3] *Les locaux* ***répondaient*** *de suite, avec une bonne tête de Maelbrancke,* [4] *mais le défenseur Radet* ***sauvait*** *sur sa ligne.* [5] *La réponse blésoise ne se* ***faisait*** *pas attendre:* [6] *Itoua Akognakogna* ***dribblait*** *deux défenseurs* [7] *puis* ***remettait*** *à Rokizuma.* [8] *Là aussi, c'est un défenseur, Gaudin, qui* ***repoussait*** *la tentative.* [9] *Itoua Akognakogna* ***enroulait*** *ensuite sa frappe,* [10] *mais Souriau* ***repoussait*** *en corner.* [...] (Sketch Engine: *La Nouvelle République*, 22.08.2016)
'[1] The Blesoisian Gonçalves was the first one to get into gear (10th), [2] but his shot just missed. [3] The locals responded immediately with a good header by Maelbrancke, [4] but the defender Radet saved on the line.
[5] The Blesoisian answer was not long in coming: [6] Itoua Akognakogna out-dribbled two defenders, [7] then passed to Rokizuma. [8] There too it was a defender, Gaudin, who prevented the attempt. [9] Itoua Akognakogna wrapped up his shot [10] but Souriau deflected for a corner.'

The extract may be visualized as under (H).

(H)



As (H) shows, the first reference time is maximally prominent. The following reference times are of equal prominence. In clause [6], a substructure is initiated. Thus, this imparfait use brings about different prominence values.

Apart from neutral chains (like clauses [1] to [5]), in sports reports there occur also elaborations where the subordinate structure is presented with verbs marked with the imparfait expressing sequential relations (e.g., clauses [6] and [7] and possibly also [8] are rhetorically subordinate to [5] via an ELABORATION relation, in the sense of Asher and Lascarides 2003). Furthermore, we found semi-stativised chains. We cannot go into further detail here. Importantly, we found mostly action verbs of which many are telic. This property readily indicates the sequential relation.

4 Concluding Remarks: Configurational Fixation and Allocation to Text Types

In this contribution, we described five different kinds of updating imparfait uses. We determined the following relevant properties pertaining to traditional categories: Co-occurring adverbial expressions, temporal and contextual embeddedness, several occurrences of one kind in a row, temporal overlap and the *aktionsart* of the involved verb, especially, its (non-)telicity. Furthermore, we showed that the prominence value or the available prominence values is another powerful property to distinguish the uses.

With all this in mind, we can now summarize the correlation between the imparfait uses and the text types. The tendencies within the different categories are subsumed as the configurational properties of the different updating imparfait uses. Depending on the strength of the tendencies in sum, a use may be said to possess a more or less strong configurational fixation. This fixation correlates with the probability of an expansion across text types (see the respective sections above for references).

The configuration of the typical narrative imparfait is the least variable. The structure is temporally embedded under an adverbial expression and also shows contextual embeddedness. Several imparfaits may occur in a row without temporally overlapping each other. The verbs are mostly telic. The prominence value is equal per default with respect to the surrounding context. By contrast, of the discussed uses, the generalized updating imparfait we found in sports reports is the most variable. A co-occurring adverbial expression is not necessary but possible. It is normally not temporally embedded (but may be). It can express perfect sequentiality. Temporal overlap is not typical but may occur when there are several such imparfaits in a row. In what concerns its *aktionsart*, there is a tendency towards telicity, but it is not a necessary restriction. Finally, it may possess diverse prominence values. The generalized updating use seems to be restricted to sports reports. A factor favouring its occurrence in sports reports is that a real time reference can always be retrieved there. The typical narrative imparfait, on the other hand, is found in quite different text types (cf. Bres 2005: 215). Even though it is often discussed for literary texts, it also appears in newspaper articles (cf., e.g., Bres 1999; Bres 2005) and even in (pre-planned) oral discourse (cf. Bres 1999: 15; Bres 2005: 10; Labeau 2006).

In what concerns the intermediate steps, the tendencies are less apparent. The date setting imparfait still has a quite fix configuration. E.g., it needs an adverbial expression and may not occur together with further instances of the same kind in a row. It is found at least in reports on politics and non-fictional literature. The progressive with narrative features whose properties involve the

lack of an adverbial expression and a temporal overlap might be found across the more classic narrative prose. The literary non-typical narrative imparfait which is even less configurationally restricted might even be considered to be the individual preference of certain authors.

To conclude, the principled description of certain imparfait uses as updating narrative time is a helpful step towards covering the field of narrative imparfaits more thoroughly. It enables us to take more cases into account and describe them in a relatively neutral manner. The property of the prominence value of the reference time introduced via a certain imparfait use proves to be an important additional delimiting factor. However, due to the diversity of updating imparfait uses, a short survey like the present one needs to set aside many relevant details. Further studies are needed to sustain the approach. First, the distinguished classes should be analyzed across a wider range of variation. More precisely, as Emmanuelle Labeau (5 June 2018, p.c.) underlines, refinements concerning variational dimensions like diatopic and diastratic variation and, in the realm of newspaper reports, e.g., national vs. local press, would deepen the understanding. Second, further cases should be considered where the updating is brought about in a different manner. In this vein, Louis de Saussure (29 October 2019, p.c.) suggests to link the discussed cases with, e.g., preludic and counterfactual uses. This would shed light upon how the hearer determines the update and on possible connotations of the uses discussed in the present contribution. It would also be an important step towards a combination of the present account with the one mentioned in Section 2, which focuses on the role of perspective.

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CHAPTER 5

The Futurate Reading of the Spanish Present Progressive (*estar* +*-ndo*)

Alicia Cipria

1 Introduction

Progressives are known to have futurate interpretations (Dowty 1979; Smith 1997, among others). A futurate is a forward-looking temporal interpretation conveyed by a form other than the canonical structures associated with future expression, e.g., the simple future and the *'go to'* future. The Spanish Simple Present (SPres) has been the traditional vehicle for a futurate interpretation (henceforth, FutPres: "simple present futurate"), as in (1a). This paper focuses on the futurate interpretation of the Spanish PROG periphrasis *estar* (be) + *gerund* (*-ndo/-ing*); cf. (1b), as attested in Argentinian Rioplatense Spanish (ARSP):[1]

(1) a. *Lara canta en el Colón mañana* *FutPres*
Lara sing-**PRS**.3SG at the Colón tomorrow
'Lara sings at the Colón tomorrow.'

b. *Lara está cantando en el Colón mañana* *FutProg*
Lara be-PRS.3SG sing-GER at the Colón tomorrow
'Lara is singing at the Colón tomorrow.'

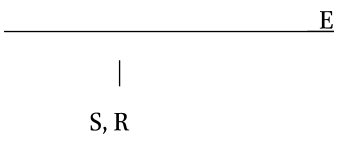
In both (1a) and (1b), it is inferred that a singing event has been planned or scheduled to happen at a time later than Speech Time (ST). FutPres is still the preferred form for futurate expression in ARSP. However, at least for the past twenty-five years, there has been a change in progress, whereby a new futurate, FutProg, has developed; mainly in declarative and dynamic clauses.

1.1 *Futurates and Other Futures*

The futurate predicts a future situation from the perspective of the present (Smith, 1997). Futurates are interesting for the study of temporal reference

1 Argentinian Rioplatense Spanish includes the south of Entre Ríos and Santa Fe provinces, Buenos Aires city (*Porteño* dialect), Buenos Aires province (*bonaerense*), and the Patagonian

because the reference time for a future situation is located at ST, while the actual situation time (cf. event time) is located at a time later than ST. Compare the Reichenbachian representation for futurates in (2a) with the representation in (2b) for the canonical futures (the Spanish inflected future and the *ir a* 'go to' future). Examples corresponding to each of the representations follow:

(2) a. 

b. 

E: Event time; S: Speech time; R: Reference time

a′. *Íbamos*[2] *a salir* *a las 6* *pero* ***ahora*** *estamos* *saliendo*
go-IMPF.1PL to go-INF at the 6 but now **be-PRES.1PL** **leave-GER**
a las 10.
at the 10
'We were going to leave at 6, but now we are leaving at 10.'

b′. *Íbamos* *a salir* *a las 6* *pero* ***ahora*** *vamos*
go-IMPF.1PL to go-INF at the 6 but now go-**PRES.1PL**
a salir *a las 10.*
to leave-INF at the 10
'We were going to leave at 6, but now we are going to leave at 10.'

b″. *Íbamos* *a salir* *a las 6* *pero* ***ahora*** *saldremos* *a las 10.*
go-IMPF.1PL to go-INF at the 6 but now leave-**FUT.1PL** at the 10
'We were going to leave at 6, but now we will leave at 10.'

Observe the second conjunct in each sentence: the future event (or situation) in (2a′) is evaluated at ST (= Reference time): *ahora* 'now,' and the event (or situation) time is located at a later time. Examples (2b") and (2b′), with the *go-to*

region (cf. Vidal de Battini, 1964). *Rioplatense* designates the Spanish of Buenos Aires and Montevideo.

2 This past imperfect form (*Imperfecto*) provides context (the preliminaries) for the eventuality described by the FutProg in the second conjunct following *pero* 'but.' In the second conjunct, temporal reference shifts by the introduction of the adverbial *ahora* 'now', therefore the *Imperfecto* has no incidence on the temporal reference of the second conjunct.

future and the Simple Future, respectively, are temporally interpreted as displayed in (2b), and both also occur in ARSP.

The rest of the paper proceeds as follows: section 2 reviews general characteristics of futurates, section 3 discusses progressives in terms of the inertia concept, and section 4 shows the relationship of progressive meaning to futurates. Section 5 provides an account of observed effects of FutProg in ARSP vis à vis the proposals advanced throughout the paper, including a brief comparison of FutProg with FutPres. Section 6 offers a summary and concluding remarks. Most theoretical assumptions derive from the framework proposed by Cipria & Roberts (2000) (henceforth, C&R) for Spanish *Imperfecto*.

2 General Characteristics of Futurates

Futurates introduce a present state of affairs that is preliminary to a future situation (Smith 1997: 189). Smith (2006) adds that futurates present said future situation as the final endpoint of a predictive situation. It is often assumed, in relation to futurates, that the preliminaries to a future situation involve a plan, schedule, a pattern of events, intentions, or preparations; we will call these plannable futurates.[3] Plannable futurates presuppose, at reference time (here, ST), the existence of one of the above-mentioned preliminaries and that there is an authority, person, or entity that makes sure the wheels are set in motion for the future situation to obtain at a time later than ST. This person or entity need not be overt and, further, it need not coincide with the subject or agent of the future eventuality, nor the speaker of the utterance, as can be seen in (3a, b):

(3) a. *Mañana me están llamando de* ***Tribunales***
Tomorrow ACC.1SG be- PRS.3PLU call- GER from the courthouse
'Tomorrow they are calling me from (on behalf of) the courthouse.'

b. *Esta denuncia se está presentando dentro de*
This complaint REFL PASS.3SG be- PRS.3SG present-GER within the
unos minutos.
some minutes
'The formal complaint is being filed in court in a few minutes.' (on-the-scene report, radio)

3 Copley (2009, 2014, 2018) uses this term for contrast with what she calls *natural futurates* (e.g., *The sun is rising at 6 tomorrow*). Natural futurates are calculable given that they predict a future situation based on mathematical and astronomical calculations, laws of physics, almanacs, and the like. In this paper, we will not focus on this type of futurate.

(3a) carries the presupposition of prior scheduling of the call and that an entity, the courthouse, is the initiator or director.[4] In (3b), with an impersonal passive, there is no overt director. However, an inference can be made from prior context, for example, from the initial report of the details of the complaint.

Fleischman (1982) argues that what characterizes futurates is not the objective existence of a plan but the "speaker's belief that the future event can be entirely determined by present circumstances." (1982: 181).[5]

The assumption that future events can be predicted from current circumstances is central to the definition of futurates, which we discuss in later sections. Since progressives are known to develop futurate readings, we must first look at the characteristics of a progressive.

3 Progressives

Progressive meaning is instantiated in the grammar of Spanish by progressive periphrases (*estar* + *-ndo* (GERund), both past and non-past[6]), as in (4a), and as one of the meanings of imperfective forms like the *Imperfecto* and *Simple Present* (cf. 4b):

(4) a. *Ahí está pasando la carroza*
there be-PRS.3SG pass-**GER** the float
'The float is going by.'

b. *Ahí pasa la carroza*
there go-PRS.3SG the float
'There's the float going by/There goes the float.'

Progressive forms describe an event in progress without referring to its beginning or end.[7] In terms of temporal reference, eventualities[8] described by the

4 This latter term is due to Copley (2009, 2014, 2018), as well.

5 It can be concluded, from Fleischman's discussion of futurates, that the "present circumstances" assumption also applies to *natural futurates*.

6 Spanish has other progressive periphrases like *andar* + GER, *ir* + GER, *and venir* + GER that we will not consider here. García Fernández (2006) and Torres Cacoullos (2002) provide more details about those constructions.

7 The progressive periphrasis can sometimes describe habitual situations, cf. *Están vendiendo autos eléctricos solamente* 'They are selling only electric cars.'

8 Eventualities comprise both states and events (i.e., dynamic predicates).

present progressive are often said to include, surround or overlap ST.[9] Since the present progressive does not refer to any bounds in the events it describes, associated situations are potentially viewed as extending into the past or future (Smith, 2006). The next section introduces concepts related to progressives.

3.1 *Progressive, Imperfective, Atelic*

Thus far, we have been referring to progressive or imperfective readings of verbs or predicates. In this paper, perfective and imperfective aspects are seen here as morphological categories, reflected in markers on the Pretérito and Imperfecto, respectively. Similarly, progressivity is also expressed morpho-syntactically on the PROG periphrasis with *estar*. Both imperfective and progressive meanings share the common element of the sub-interval property (Dowty, 1987), which is the defining element of atelicity. The following detailed discussion adds to our knowledge of the progressive and its relationship to properties that influence our perception of ST as part of an extended situation into the future. Following C&R, *Aktionsart* is considered a semantic notion that is correlated with clauses. There are two types of *Aktionsart*, viz. telic and atelic.[10] Informally, due to the subinterval property, if a state or process holds at some interval of time, then it also holds at any subinterval of that interval. For example, if it is true at an interval of an hour that I know something, I also know it at any subinterval of that hour (*distributivity*). Also, its truth at the hour-long interval does not exclude the possibility that there may also be a larger super-interval (e.g., of two hours), during which the same state or process is true (*cumulativity*). Distributivity and cumulativity are crucial in an account of progressive situations that extend into the future; cf. remarks at the end of this section. Examples with past situations demonstrate more clearly how these properties work. In (5b), the interval from 4 to 4:30 pm is a sub-interval of the one from 4 to 5 pm (5a). The atelicity of the clause containing *correr* is reflected in the fact that (5a) entails (5b) (distributivity). Similarly, if the trainer runs during the period from 4 to 5 pm and also during the period from 5 to 6 pm, it is true that he runs from 4 until 6 pm, as well (cumulativity).

9 ST = "default orientation point" in communication: the Past precedes ST; the Future follows it (Smith, 2006).

10 Dowty (1987) groups Vendler's categories under *atelic* (states: *saber* 'know' and activities: *correr* 'run'), and *telic* (achievements: *darse cuenta* 'realize', and accomplishments: *escribir una carta* 'write a letter').

(5) a. *El entrenador corrió de 4 a 5*
the trainer run-PRET.3SG from 4 to 5
'The trainer ran from 4 until 5.'

b. *El entrenador corrió de 4 a 4:30*
the trainer run- PRET.3SG from 4 to 4:30
'The trainer ran from 4 until 4:30.'

Telic *Aktionsarten* do not display the subinterval property. As it happens, if a telic event is true at an interval, none of its proper sub-intervals will verify an instance of the same type of event. In (6a) we can only say that a telic situation is true at the maximal interval which it took Lara to write the report in question:

(6) a. *Lara escribió un informe.*
Lara write-**PRET**.3SG a report
'Lara wrote a report.'

b. *Lara estaba escribiendo un informe.*
Lara be-**IMPF**.3SG write-GER a report
'Lara was writing a report.'

If (6a) is true at an interval *i*, we cannot say that it is true at any subintervals of *i*. Of course, the progressive version of (6a), (6b), may be true at a subinterval of *i*. Even though the atomic predicate, *write-a-report*, is telic, the introduction of the progressive yields atelic *Aktionsart* for the whole clause. The (a)telicity value of a clause results from a compositional calculation of verb type (state, activity, achievement, accomplishment); its NP complements (e.g., *beer* vs. *a beer*); adverbials (*for an hour* vs. *in an hour*); locative PPs (e.g., *to the store*), and aspectual (VP) operators like the Progressive (PROG) and the Imperfective (IMPF).

Reviewing what we have laid out so far: we described progressive forms and the associated atelicity for the clause that contains them. Progressives, as atelic forms, display the subinterval property. In present progressive situations, where Reference time equals Speech time, the associated properties of cumulativity and distributivity facilitate our perception of present situations as extending into the future, beyond ST.

A related notion from progressive accounts is the concept of inertia, to which we now turn.

3.2 *Inertia*

The concepts of inertia worlds or futures for the progressive were introduced by Dowty (1977, 1979) within a branching times type of framework; later refinements were proposed by Portner (1994), Landman (1992). Briefly, with branching times, it is assumed that a continuation of a situation into the future may result in different outcomes. Working on the Spanish *Imperfecto*, C&R employ the term inertia situation[11] based on Dowty's notion of an inertia world (also compare Portner (1994)'s inertia events[12]). An inertia situation for a situation *s* is one which begins just like *s*, but continues in the way that *s* would continue were there no interference with the course of events as they have developed up to that point. Naturally, in reality, the course of events is often interrupted; e.g., Carla might be in the midst of roasting a chicken, but steps away to take a phone call and never finish it, or the chicken-roasting is cut short by an oven malfunction. The progressive reading, in this sense, is like modality in that it makes reference to possibly unrealized situations. C&R also require that an inertia situation continue beyond the time of evaluation, the interval at which the progressive is asserted to be true. That is, this constraint involves the assumption that any inertia situation for a situation *s* has a temporally final sub-situation which properly temporally follows it. This assumption ensures that an inertia situation proceeds in an identical fashion to how the situation was developing up until the interruption. Put another way; inertia situations are those in which there is no interruption. In the chicken example above, an inertia situation is one in which the chicken-roasting continues.

The following defines the truth conditions of progressives under an inertia account:

Φ = a clause corresponding to a proposition

(7) **Progressive** (inertial account[13])

Progressive Φ is true in a situation *s* if and only if there is an interval *s′* which coincides with ST and Φ is exemplified by every inertia situation for *s′*, as well

11 Situations have spatio-temporal characteristics; they can be informally described as worlds and times combined into one.

12 Dowty's inertia account has been criticized extensively, mainly for how vaguely inertia worlds are defined. Portner (1998) proposes inertia events in a modal account with ordering semantics. Inertia events are ranked (via an ordering source) in terms of how relevant they are to expected continuations of the event. In other words, relevant inertia events will be those in which the event described by the sentence is not interrupted.

13 Modified from C&R's progressive version for the *Imperfecto*.

as by the inertia situations for all the sub-situations of *s′*. I.e., Φ is true if things go on as they have been developing so far.

As (8) illustrates, the intended event of the singer's coming is specified to be realized, if at all, after the speech time and, perhaps, even later.

(8) *Hola! bueno ... novedad ... en estos días está viniendo para*
Hi! Well ... news ... on these days be-PRS.3SG write-GER to
acá no se sabe cuándo exactamente ... así que ...
here no IMPERS know-PRS.3SG when exactly so that
atentos. besos.
attentive-3PLU.MASC kisses.
'Hi! Well ... news ... in the coming days s/he is coming here ... no one knows when exactly ... so be on the lookout ... kisses.' (From a fan group site for a singer (Google))

(8) is true if and only if in all the inertia situations for Φ, the singer's coming is not interrupted. In the next section, we show how the inertial definition of the progressive fits in an account of the futurate interpretation. Before, though, I will allude briefly to some proposals which could enrich the basic framework of inertia.[14]

In discussing progressives and the progressive interpretation of imperfectives, Deo (2009) illustrates other ways of constraining the original inertia conceptualization. The proposal involves the *expected continuation* assumption and a *predictability requirement* that would rank situations according to the degree of predictability associated with what we know at present (ST). Hoff (2019) presents an account of indicative/subjunctive variation in Spanish adverbial subordinate clauses based on the speaker's presumption of settledness of a future event, after the notion of (presumed) settledness proposed by Kaufmann (2002 and subsequent works).

14 However, I will not elaborate on how the integration of these proposals into the inertial definition could be accomplished technically. With regard to progressive futurates, the inertial definition in (7) will suffice.

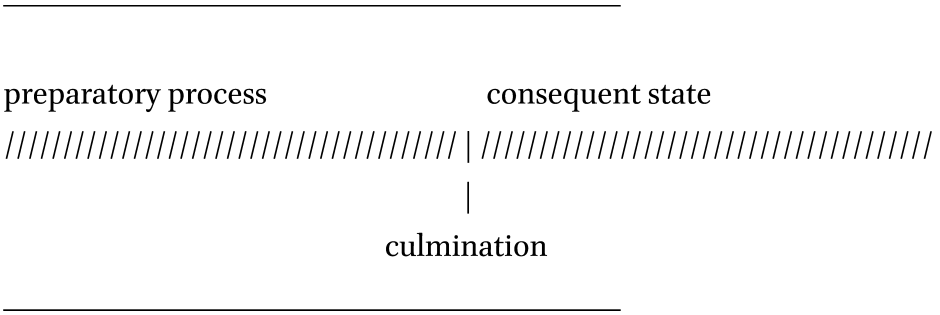
4 Futurate Interpretation as a Subcase of Progressive Meaning

In addition to inertia, and in order to capture futurate readings,[15] we need to assume that events consist of a change of state and also of a preparatory phase.

4.1 *The Preparatory Process*

Moens and Steedman (1988) introduce the concept of a preparatory process (cf. (9) below), which is a sub-part of an event before any culmination (of the change of state) occurs, during which preparations for its materialization are completed. If this assumption is made, then the truth of a situation described by Simple Present or the PROG periphrasis might be true, under a progressive reading, *if* the *preparatory phase of the ongoing event is also in progress*. If we include the period during which one holds intentions to perform some act as part of the preparatory phase of an extended event, then the extended event is in progress during the preparatory phase; that is, during the period when one holds those intentions. *If one's intentions* (*or plans*) *are carried out as intended*, then in *all the inertia situations corresponding to that period, the event itself will come about*.[16] From this perspective, futurate readings are a subtype of the progressive reading.

(9) Moens & Steedman's (1988) internal structure of a telic event ("Nucleus")[17]



15 This assumption is based on C&R's analysis of the *Imperfecto*.

16 The "intention period" may or may not involve a complete plan or actual schedule. The preparatory phase need not involve the intentions of a director/authority but may indicate that all the wheels are in motion which will lead to an event happening. This assumption allows us to refer to both calculable and plannable futurates. For natural futurates, the preparatory phase may consist of the "present circumstances" (cf. Fleischman, 1982) resulting from mathematical calculations, and so on, as mentioned earlier.

17 Note that we are not assuming the whole transitions approach by these authors.

For Moens and Steedman, the preparatory process might be interpreted differently for specific examples, depending on real-world pragmatic knowledge and the truth conditions of the examples involved. C&R show how this assumption works for the futurate reading of the *Imperfecto*.[18] Naturally, the past is different from the future, but it provides us with an opportunity to illustrate more clearly how the preparatory process works.

4.1.1 Preparatory Process in Past Situations

As C&R show for the past dimension, in one scenario the preparatory process may consist of the actual beginning of the change of state which leads to the culmination, as in the progressive reading of the *Imperfecto* in example (10a):

(10) a. *Ibamos* *a la* *playa* *cuando* *nos* *encontramos*
go-IMPF.1PLU to the beach when RECP.1PLU meet-PRET.1PLU
con Miguel
with Miguel
'We were going to the beach when we ran into Miguel.'
progressive

b. *Hasta* *ayer* *íbamos* *a la* *playa* *de vacaciones* *pero*
until yesterday go-IMPF.1PLU to the beach on vacation but
hoy *Pepa* *dijo* *que* *no* *había* *dinero* *para* *eso*
today Pepa say-PRET.3SG that no be-IMPF.3SG money for that
'Up until yesterday we were going to the beach on vacation, but today Pepa said that there is no money for that.'
futurate

In a different scenario, the preparatory process may consist of a planning or preliminary phase, as illustrated by (10b). (10a) says that we were already on our way when we ran into Miguel. Under the progressive meaning, there is no reference as to whether we continued on our way to the beach after the encounter or to whether the encounter provided an end to the beach-going event. What (10b) says, however, is that up until yesterday our intention/plan to go on vacation was still holding (without necessarily having already started to pack, for example) and that some preliminary ideas / plans were already underway at

18 Also discussed as the "intention-in-the-past" reading at different points in the paper. The term futurate is then used to account for natural futurates, for example.

speech time (to the past of speech time in this case). In other words, the vacation is not underway but, rather, the intention still holds in the speaker's mind[19] until the vacation becomes a reality or plans are changed by some unexpected occurrence.

4.1.2 Preparatory Process in the Present Progressive (FutProg)

In the case of the present dimension, we already saw in (8), a movement verb-an achievement, how the preparatory process works in a FutProg reading. Now consider (11) how the preliminaries for the signing of an agreement have already begun before ST. Intentions or plans are true at ST, and they continue to hold until the agreement is signed.

(11) *En las próximas semanas estoy firmando un convenio para*
in the next weeks be-PRS.1SG sign-GER a agreement to
…

'In the coming weeks, I am signing an agreement to …' (President-University of Buenos Aires, July 2008, *TN news* interview)

The interpretation in (11) is that the signing of the agreement will take place at the end of the "coming weeks" period. That is, the signing of an agreement presupposes that the parts have already agreed on a given issue, and the signing means ratifying it in writing; the agreement (the *telos*) is not ratified until it is signed.

Summarizing, we showed how a futurate interpretation can be derived from the meaning of progressives. Crucial to this proposal is the concept of a preparatory process (as in Moens and Steedman, 1988), which may be associated with plans, intentions, preparations or, merely, with the preliminaries to some event.

Next, we examine how the preceding treatment of the futurate as an extension of the progressive operates in available contexts for the FutProg in Argentinian Rioplatense Spanish.

19 Cf. the notions of expected continuity (plus a predictability requirement) and presumed settledness, mentioned in section 3.2 above.

5 Accounting for Observed Effects in ARSP

The FutProg in Rioplatense is felicitous mainly in declarative contexts, and with dynamic predicates, i.e., non-stative.[20] In order to understand the FutProg contexts better, I present the following brief discussion on dynamic predicates.

Dynamic predicates include activities (or processes), achievements, and accomplishments. All of these predicates involve some kind of change. C&R, following Hinrichs (1985), point to the relative homogeneity of processes such as *walking* and to those sub-eventualities of the process that are not sufficiently extended in time, i.e., that do not count as sub-eventualities of walking but may refer to micro-movements like lifting a foot, flexing a heel and so on. Even though the micro-movements do no cause essential changes, like changes of state, there is still some kind of modification to the body of the subject that performs the activity. It is in this sense that processes are dynamic. Similarly, in the activity of *-cantar en el Colón* -'sing-at-the-Colón' (cf. (1b), repeated below), the singing eventuality includes micro-changes that cannot be identified as sub-eventualities of the singing event but may involve air entering through the nose, the opening of the diaphragm, breathing from the stomach, and so on.

(1) b. *Lara está cantando en el Colón mañana*
Lara be-**PRS**.3SG sing-**GER** at the Colón tomorrow
'Lara is singing at the Colón tomorrow.'

Achievements are dynamic since they are instantaneous events that result in a change of state. Accomplishments consist of a process with successive stages, with an outcome or resulting state. Achievements returned the most significant number of tokens, followed by activities and, to a lesser extent, accomplishments. Interestingly, achievements were also found to occur more commonly with futurate readings of the past *Imperfecto* in C&R. To see why more details about achievements are provided below.

5.1 *Achievements*

By far the most common type of achievements in the ARSP data were movement verbs, as in (8) above and in (12a):[21]

20 States display no change and are thus homogeneous. Cf. discussions on non-permanent states, e.g., *I live* vs. *I'm living in Paris*, in Dowty (1979), among other authors.

21 Similar examples are reported for Caracas Spanish by Sedano (2000).

(12) a. *Soy de … y estoy yendo a Rosario para*
be-PRS.1SG from … and be-PRS.1SG go- GER to Rosario to
instalarme allá. Soy … pero mi intención es
get settled-ACC.1SG there be-PRS.1SG but my intention is
conseguir trabajo como …
get work as
'I'm from … and am going to Rosario to get settled there. I am a … but my intention is to find a job as a …'

C&R discuss the contrast between accomplishments and achievements in connection with the internal structure of telic events shown in (9) above. In accomplishments or complex telics, the change of state in (9) is extended. To account for this extended feature, C&R argue that there is a non-empty process leading to the culmination, the pre-culmination process, which is a sub-event occurring after the preparatory process. In achievements (simple telics), the pre-culmination process is empty. The culmination is point-like, i.e., temporally non-extended. In a past futurate reading, the *Imperfecto* contributes atelicity to the interpretation of the clause. Since achievements (simple telics) have no inherent pre-culminative process, a futurate reading focusing on the preparatory process is forced in order to make sense of the combination of atelicity and a telic.[22]

5.2 *Activities and Accomplishments*

(1b) is a clear example of an activity; in fact, there were many activity tokens related to performing, playing at a concert, and so on, but not many tokens of other activities like walk, drive, push a cart. Activities have no inherent ends and thus appear with some contextually-provided bound; in this case, planned activities like singing or playing at a particular venue always presuppose the existence of a schedule, which usually provides an upper bound focusing on the time at which the activity will start.

22 Under this view, examples like (i) are acceptable in the *Imperfecto*:
(i) *Lara empezaba el régimen el lunes. Pero hoy se enteró de que*
Lara start-IMPF.3SG the diet the Monday. But today learn-PRET.3SG that
sus amigas le van a hacer una fiesta
POSS.3PL friend-FEM.PLU DAT.3SG go-PRES.3PLU to make a-FEM.SG party
esta noche, así que decidió no empezar hasta el otro lunes.
this-FEM night, so decide-PRET.3SG not begin until the other Monday.
'Lara was going to start her diet on Monday. But today she learned that her friends are going to throw a party for her Monday evening, so she decided not to start until the following Monday.'

The felicity of FutProg with accomplishments comes from the preparatory process in the internal structure of an event. Observe (3b), repeated here as (12c) and (11), repeated here as (12d):

(12) c. *Esta denuncia se está presentando dentro de*
this complaint se-REFL PASS be- PRS.3SG present-GER within the
unos minutos
some minutes
'The formal complaint is being filed in court in a few minutes.' (on-the-scene radio report, Buenos Aires)

d. *En las próximas semanas estoy firmando un convenio*
in the next weeks be-PRS.1SG sign- GER a agreement
para …
to
'In the coming weeks, I am signing an agreement to …' (University of Buenos Aires' president, July 2008, *TN news* interview)

In (12c), the change of state indicating the beginning of the event of "filing a complaint" is preceded by the adverbial *dentro de unos minutos* 'in a few minutes.' It is only required that after a few minutes, the complaint is filed. As mentioned previously, in (12d), the interpretation is that the signing of the agreement will take place at the end of the "coming weeks" period. The signing of an agreement presupposes that the parts have already agreed on a given issue (during the preparatory process), and the signing actually means ratifying it in writing; the agreement (the *telos*) is not ratified until it is signed.

5.3 *Interrogative and Negative Contexts*

Interrogative and negative polarity contexts are considered to be conservative environments for the spread of grammaticalization (Torres-Cacoullos, 2012). Interrogative (*Wh* or *yes-no*) tokens were not found in the naturally-occurring data, while in constructed examples, the FutProgr is definitely odd, with either type of interrogative.

FutProg readings do arise in negative polarity contexts, and they are compatible with activities. Compare (13), where the speaker has already expressed her intention not to bring anything so it would appear the question of fulfilment of the speaker's intention is settled. However, due to the progressive's modality, it is still possible that the speaker may change her mind and bring something to share at her workplace.

(13) Anchorperson 1: Me contaron que sos buena cocinera
'Someone told me you are a good cook.'
Anchorperson 2: Soy. Pero **no estoy trayendo nada**. No me pidan.
'I am. But **I'm not bringing anything**. Don't ask me.'
(TV news, TN, Dec. 2018 in friendly chatter between news segments)

Achievements (especially, movement verbs) are acceptable in negative contexts but only when indicating an exception to a characteristic situation (14a):

(14) a. Hoy no estoy saliendo a las 5 sino a las 7.
'Today, I'm not leaving at 5, but at 7, instead.'
b. # Hoy no estoy saliendo a las 5.
'Today, I'm not leaving at 5.'

We saw that FutProg is not felicitous in interrogatives. FutPres, though, is compatible with all types of interrogatives, which needs to be explored further in a different paper. A comparison of the FutPres with the FutProg has not been the primary goal of this paper but, next, I refer to a few issues that have been mentioned in the literature concerning the contrast.

5.4 *FutPres and FutProg*

First, recall that in ARSP the FutPres is still the more widely used futurate across every context. The reason why this is so can be attributed to the relatively recent innovation of FutProg. The difference between the two futurates of English (simple and progressive) has been attributed to aspect. Copley (2009 and subsequent work) hints at an aspectual difference but provides no further elaboration.

First off, the only contrast we have been able to ascertain between FutPres and FutProg is that the latter is not felicitous with natural futurates, which would underscore the plannable flavour of the FutProg vs. the calculable natural futurates. However, FutPres is felicitous with both types of futurates, i.e., it is compatible with plannable eventualities, as well.

Notice that the assumption that intentions (under an inertial account) continue to hold until the event is realized means that the sub-situation property is at play; in other words, atelicity is central to the assumption. Note that this may pose a problem for "telic" readings of the Simple Present. Progressive meaning, as was defined earlier, applies equally to the PROG periphrasis and the progressive reading (event-in-progress) of the Simple Present. I argue that the meaning of the Simple Present is basically atelic (including its simple atelic, event-in-progress and habitual readings) and that telic readings arise from discourse

effects (in narratives, for example) and from scope relations with adverbials. For an elaboration on how perfective readings arise, see Smith (1997: 190 ff.). These are marked readings in the sense that they are not part of the inherent meaning of the Simple Present but arise due to discourse effects and scope interactions with adverbs (i.e., indirectly). Smith (1997) mentions, concerning the French Simple Present, that it "codes the imperfective[23] viewpoint and thus excludes endpoints (1997:112)." This is precisely our position for the Spanish Simple Present. Note that Smith's (1997) account of the French Simple Present (1997:197 ff.) could be adapted to account for facts in Spanish, in relation to a neutral viewpoint.

5.5 *Why Two Forms?*

It is often assumed that a process of grammaticalization is set in motion when speakers start choosing new ways of "saying approximately the same thing" (Hopper and Traugott 1993: 65).

SPres and *estar*+-*ndo* are the two variants that express event-in-progress meaning in the non-past. The reason for the incompatibility of FutProg with natural futurates may stem from the fact that we are witnessing a change in progress that has not yet spread to all the contexts in which we find the other futurate; the FutPres. The latter is the across-the-board preferred futurate since it is felicitous in all contexts (including negative, interrogative, conditional), and it combines well with most predicates to convey futurate meaning. In contrast, the FutProg (the periphrasis) is still restricted to a few contexts and is not compatible with all predicates, as was shown throughout this paper.

The progressive sense of the Spanish SPres is losing ground to the PROG periphrasis in event-in-progress contexts, according to Torres Cacoullos (2012). Despite this nascent development, *estar* +-*ndo* is not gaining more frequency, across the board, over the SPres (cf. Torres-Cacoullos, 2000 and Cortés-Torres, 2005). Claims about the SPres being, already, the dis-preferred form for the event-in-progress sense (cf. among others, Fuchs, Deo, and Piñango, 2020) would need to account for the fact that the Fut(urate) Pres(ent) is not losing any ground at all. These authors' interesting proposal for the progressive sense in the SPres vs. *estar*+-*ndo* involves a context richness variable and a Shared Perceptual Access Hypothesis. It remains to be seen whether the proposal is generalizable to all environments involving the two forms.

23 Cf. Deo (2009)'s proposal of a unified theory on the meanings of progressive and imperfective aspects.

6 Concluding Remarks

This paper had two principal goals; viz. to characterize the linguistic environments in which the FutProg arises in ARSP and to argue that FutProg is best explained by considering it an extension of progressive meaning. FutProg examples have been "spotted" in other varieties of Spanish but there have no consistent accounts for them. Marcovecchio (2000) reports on the use of FutProg in Rioplatense and also cites Cartagena (1978), who reports the use of FutProg in Chile. Sedano (2000) published on the use of FutProg in Caracas, Venezuela. Gómez Torrego (from Spain) cites examples in his grammar manual (1988:15). Thus far, then, ARSP is the only regional variety of Spanish that has provided us with enough data to make initial generalizations. As was shown, FutProg only occurs in certain contexts; mainly in declarative, dynamic clauses, with some uses in negative-polarity contexts. Achievements provided the largest number of tokens, followed by activities and accomplishments. The central notion of a preparatory process allowed us to capture the preliminaries, preparations or plans that are commonly associated with futurates. In considering FutProg as an extension of progressive meaning, we made use of the concept of inertia to capture the intuition that a proposition associated with a FutProg clause is true and continues to hold until there is an interruption or until it ceases naturally. The ideas of a preparatory process and inertia made it easier for us to visualize how a FutProg can be possible.

Future investigations of this topic could try to incorporate predictability or settledness frameworks in order to overcome earlier, weaker accounts of inertia or to construct a formal apparatus, showcasing modality and regional variation.

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CHAPTER 6

Non-culminating Accomplishments: Subject, Speaker and Syntactic Structure

Jacqueline Guéron and Svetlana Vogeleer

1 Introduction

Talmy (1991) drew attention to the possibility of a non-culminating reading of accomplishment verbs combined with perfective aspect in Mandarin Chinese. This case is illustrated below by Talmy's example (1a) as opposed to (1b) (Talmy 1991: 516), in which the "satellite" (the second verb of the compound VV construction) unambiguously denotes the culmination point. In both sentences perfective aspect is marked by the particle *le* which follows the only verb in (1a) and the compound in (1b).

(1) a. *wǒ shā le tā (dàn-shì méi shā sǐ)*
I kill PFV him (but -not PAST kill die)
'I killed him but he was not dead.'

b. *wǒ shā sǐ le tā*
I kill die PFV him
'I killed him.'

Talmy emphasized that the negation of culmination (*but*-clause) in (1a) was only possible when the action is performed by the subject with the *intention* that it lead to the outcome indicated by the "satellite" in (1b), and hence requires an intentional (typically human) subject.

The recent renewed interest in non-culminating accomplishments has given rise to a number of studies on various genetically unrelated languages that confirm the intentionality requirement postulated by Talmy. In sentences with a non-intentional, typically non-animated, subject, the culminating reading is the only option (cf. a.o. Bar-el et al. (2005) on Salish languages Sťát'imcets and Sḵwx̱wú7mesh; Martin (2015) on French; Smith (1997), Soh & Kuo (2005) on Mandarin Chinese; Beavers & Lee (2020) on Korean; Tatevosov (2008), Tatevosov & Ivanov (2009) on Karatchay-Balkar and Mari; Kiyota (2008), Tsujimura (2003) on Japanese; Singh (1998), Gyarmathy & Altshuler (2020) on Hindi).

Studies centered on the non-culmination phenomenon typically propose a semantic analysis in terms of the event structure, aspectual composition, its modal and degree components. As a result, the semantic analysis becomes more and more fine-grained and hence more and more complex.

At the same time, electrophysiological measures (event-related potentials, ERP) used in neurolinguistic studies tend to show that the linguistic input is processed by the human brain at ± 250–500 ms after the stimulus onset and at 500–800 ms when some revision of previously computed linguistic material is needed (cf. e.g. Kutas & Federmeier 2011, Marslen-Wilson 2019).[1] The latter may be the case in sentences with non-culminating accomplishments, since the non-culminating reading does not emerge without a *but*-clause. This speed is challenging for semantic descriptions which tend to overgenerate the "desired output reflecting our description of the intuitive truth-conditions" (Ramchand 2018: 3).

Some approaches in terms of the event structure do not pay much attention to the syntax of sentences with non-culminating accomplishments. However, observational techniques such as neuroimaging (fMRI), which provide information on the loci of linguistic processing in the brain, seem to indicate that the main tool which makes humans able to "make sense out of words meanings" is the syntactic structure which projects onto incoming linear linguistic material turning it into hierarchically organized units (Hauser et al. 2002, Berwick et al. 2013, Friederici 2017). The human ability to combine words into phrases and phrases into sentences is based on a simple computational principle, the Merge operation. Merge, as defined by Chomsky (1995), is a recursive operation that combines two linguistic units x and y into a more complex unit z, which is a projection of x or y. The unit z in turn can combine with another unit, generating a larger hierarchical structure, etc. It is recursion that allows humans to produce an infinite range of meanings by combining a finite set of elements.

Chomsky's theoretical postulate is supported by neurobiological observations which suggest that the syntactic information and the lexical-semantic information of a linguistic input follow two different subcortical pathways: a dorsal tract (syntactic structure) and a ventral tract (lexical semantics), both connecting left-hemispheric posterior language regions (posterior superior temporal sulcus, pSTS) and inferior frontal gyrus (the Broca's area) (cf. Frieder-

1 The first rate corresponds to the so-called N400 ERP, which is assumed to elicit lexical-semantic word integration into the sentence context (Kutas & Federmeier 2011). The second one corresponds to P600, assumed to elicit various types of conscious syntactic revision, e.g. in processing garden path sentences, and more generally, different kinds of reanalysis and repairs in building up a coherent sentence structure (Hagoort 2003).

ici 2017, Friederici et al. 2017, Berwick et al. 2013). Syntactic processing delivers the organizing structure of the sentence. It consists in retrieving all grammatically relevant information, e.g. syntax-based word order, case marking, functional words and regular inflectional morphemes, the latter, e.g. the English *-ed*, the French *-ait*, etc., stripped from their stems (Marslen-Wilson 2019). According to some studies, some features which are traditionally viewed as semantic, especially ±animacy, are also involved in syntactic processing, beginning with its early stages (Bornkessel-Schlesewsky & Schlesewsky 2009, Malaia et al. 2013).

Apart from being connected to the external world by a sensori-motor interface (speech perception and production), the language system (syntax and lexicon) is connected to the internal mental world (mind) by a conceptual-intentional interface which relates linguistic expressions to concepts and conceptual configurations, assumptions, reasoning, planning and other activities of the mental world. Empirical investigation of the conceptual-intentional interface relating sentences to the mental world is a challenging area for neuroscience (Berwick et al. 2013, Friederici et al. 2017). Internal semantic concepts cannot be assimilated to word definitions in lexical semantics. Concepts are more abstract, underspecified mental representations incorporating various kinds of associations. Even simple concrete words do not establish a direct relation between a mental representation and a real-world object. Rather they appear as instructions for "thinking about reality" (Friederici et al. 2017) or for "interpreting the world" (Berwick et al. 2013). This process relies on higher cognitive functions which are not specific to language processing, such as inferring and reasoning, often in terms of "causal thinking" about actions and goals, (presumed) causes and effects.

Our study aims to establish a relationship between morphosyntax, the lexicon and conceptual patterns involved in the phenomenon of (non-)culmination. We will argue that although the solution of the non-culmination problem crucially involves both the syntax and the lexicon, it cannot be solved within either of these language components. Certainly, it involves the interaction between the lexicon and the morphosyntax at the level of the sentence structure. In addition, as we will argue, in the case of (non-)culminating accomplishments, this interaction triggers a specific conceptual configuration. The configuration represents a goal-directed trajectory initiated by an intentional (human) subject, targeting the change-of-state of an object. Crucially, the same configuration can also be viewed in a reverse order, going from the observation of a change of state in the world to attributing an intentional or non-intentional cause to this change. We will argue that non-culminating accomplishments are palimpsestic structures that involve two points of view

simultaneously: the prospective goal-directed perspective of the intentional subject and the retrospective perspective of the speaker-narrator oriented from the result to its (effective or presumed) cause, the former being embedded in the latter.

While the intentional goal-directed trajectory is a universal conceptual pattern, its realization in particular languages depends on the lexicon and the morphosyntax. As noticed by Talmy (1991: 516), the English gloss of a lexical verb as *shā* ('kill') in (1a) and (1b) can be misleading; the Chinese verb rather means "I assaulted him with intent to kill". A lexical-syntactic parameter allows such a meaning to be derivable in some languages but not in others.

In section 2 we discuss the relationship between two causal relations: the action-goal relation and the cause-effect relation. In section 3 various cases of non-culmination consistently reported in the literature on European and non-European languages are classified into five groups according to the lexical meaning of the verb and its relationship to the result state negated in the *but*-clause. Section 4 raises the question of whether and how Russian secondary imperfective aspect is relevant to the (non-) culmination issue and discusses the controversial case of the so-called 'delimitative' prefix PO-. After this overview of various cases of interaction between the lexicon and the morphosyntax, section 5 motivates our approach to non-culminating accomplishments in terms of a palimpsestic conceptual structure involving two simultaneous points of view: the *prospective* goal-directed perspective of the intentional subject and the *retrospective* perspective of the speaker-narrator.

2 Causes and Goals

Martin's (2015) examples in (2a, b) illustrate Talmy's (1991) observation that the non-culminating reading of accomplishment predicates is restricted to human intentional actions; it is not compatible with non-intentional (non-animated) subjects.

(2) a. Le docteur Li m'a soigné, mais je n'ai pas guéri du tout.
'Doctor Li treated me, but I didn't get better at all.'
b. Ce séjour chez ma sœur m'a soigné, ??mais je n'ai pas guéri du tout.
'That stay at my sister's treated me, ??but I didn't get better at all.'

Dowty (1979) defined accomplishments by an ordered combination of three predicates: *do-cause-become*. Similarly, Rappaport Hovav & Levin (e.g. 1998) define accomplishments, within a lexicalist approach, as an event structure

consisting of two events, an activity and a change of state, linked by a causal relation, as in (3). In fact, structure (3) appears, rather, as tripartite (cf. Rothstein (2004) for a discussion of whether the accomplishment event structure is bi-eventive or tri-eventive).

(3) [*x* ACT] CAUSE [BECOME [*y* ⟨*state*⟩]]

These definitions pose two problems. The first is that both Dowty's predicate *do* and the predicate *act* in (3) already imply that the subject of *doing* (something) or *acting* (in a certain manner) is a human (intentional) agent. Both definitions constrain the category of accomplishments to contain human (or at least animated) subjects (agents). If so, neither the unaccusative VP in (4)[2] nor the transitive VP in (2b) or (5a)–(5c) below qualify as accomplishments since they combine with non-agentive subjects.

(4) a. The river froze (in one night).
b. [VP froze the river]

The second problem, partly related to the first, is that these definitions don't specify the nature of the relationship between x's doing/acting and y's change of state, thus licensing an accidental causal relation. In sentences with non-human subjects the causal relation always appears as accidental relative to the choice of the affected object, as in (5a), unless the entity denoted by the subject DP is interpreted as an instrument/machine manipulated by a hidden human with a certain intent/ design, as in (5b, c) (cf. Alexiadou & Schäfer 2006).

(5) a. The fire destroyed the forest.
b. The key opened the door.
c. The dishwasher washed the plates.

Why are accomplishments associated, at least by default, with human intentional actions? Why does this default association become a semantic constraint on the non-culminating reading, as unanimously reported in studies on various languages (cf. a.o. Beavers & Lee (2020) on Korean, Bar-el et al. (2005) on two Salish languages, Talmy (1991), Smith (1997) on Mandarin Chinese, Tatevosov

2 For the sake of simplicity, we will use the term *unaccusative* for intransitive telic VPs, and the term *unergative* for intransitive atelic vPs, i.e. activities, such as *John danced*. Unaccusatives are VPs (whose unique postverbal argument may raise) while unergatives are vPs with a selected subject.

& Ivanov (2009) on Karatchay-Balkar, Kiyota (2008) on Japanese, Gyarmathy & Altshuler (2020) on Hindi, Koenig & Muansuwan 2000 on Thai)?

Martin (2015) suggests that this restriction boils down to the subject's *agentivity*. In Demirdache & Martin (2015), this notion is strengthened by a control condition (the so-called *Agent Control Hypothesis*). Control is also central in Bar-el et al.'s (2005) study of two Salish languages. However, we assume, with Beavers & Lee (2020), that what is crucial for the non-culminating reading is not the function of agency as animacy and power potential (the agent's control of her own action) but the agent's *intention* to change the state of the Patient entity by performing a certain action.

Hommel (2017) defines *agency* (or *agentivity*) as "the impression that it is me who is carrying out (i.e. causally producing) a particular action". As we will argue in section 5, a human (or at least animated) subject is an Agent at the vP level, the level of the event description; his *agency* lasts as long as he is "causally producing" his action, i.e. from the first to the last point of the event. By contrast, the *intention* to carry out the action is ascribed to the subject before the onset of the event, in the pre-event domain, that is, not on the vP level but on the TP level, located above vP and below CP, the speaker's level. This proposal will be incorporated in the solution we offer for non-culmination in section 5. Our purpose here is limited to defining the difference between two causal relations, the action-goal relation and the cause-effect relation.

We assume, with Malaia et al. (2013), that features consistently reported cross-linguistically externalize either some core computations inherent to the neural language processing or some basic conceptual configurations hardwired in the human mind. The latter seems to be the case with the intentionality requirement for non-culminating accomplishments.

Causality, which is assumed to be a defining feature of accomplishments, is a universal concept (Pulvermüller 2018). Causal representations ("causal thinking") result from repeated experiences which contribute to create stable mental links specifying that some events necessarily (or typically) lead to some other events. There is also another kind of mental representation, namely the action-goal relation. This relation is not really causal. Rather, it involves an interplay between intentions, actions and assumptions about their result which allows humans to map actions onto their consequences.

(Non-intentional) causal relations and intentional action-goal relations are fundamentally different. The causal relation is inherently backward-oriented: it goes from perceiving the effects, e.g. the destroyed forest in (5a), to their (presumed) cause. The term *cause* is relational: something is a cause if there are some effects. Cancelling (negating) the effects entails cancelling the cause (Pulvermüller 2018). This constraint seems to be independent of any particular

language; it is consistently reported to hold in various unrelated languages. The action-goal relation is inherently forward-oriented. The perception of a human agent's action (e.g. Mary washing a shirt) activates a conceptual configuration that includes its typical goal (make the shirt clean). This forward-oriented action-goal relation is triggered by assigning an intention to the subject. An important point is that the action-goal relation holds even when the event is described retrospectively, which is the case for non-culminating accomplishments in sentences with perfective aspect.

The assumption that the action-goal conceptual configuration is hardwired in the human mind is supported by findings in the field of neurocognition. Saxe (2006) observed that (non-linguistic) understanding human actions, e.g. body movements, in terms of goals is a basic cognitive function which involves a specific, usually right-lateralized, cortex region, the posterior superior temporal sulcus (pSTS). As pointed out by Saxe (2006), this region is recruited during both direct observation of an action and indirect observation of the effects of an action. Crucially, its left-lateralized counterpart, the left pSTS, is assumed to be involved in the processing of transitive sentences with animated (intentional) and non-animated subjects (Bornkessel-Schlesewsky & Schlesewsky 2009), and more generally in thematic roles assignment (*who did what to whom*) (Bornkessel et al. 2005), as well as, arguably, in the retrieval of the syntactic frames stored in memory (Hagoort 2003). These findings suggest that the interpretation of transitive sentences and the intentionality requirement for the non-culminated reading are based not only on the lexicon and syntax but also, crucially, on the accessibility of a conceptual configuration which pre-exists the speech act. The solution that we propose for non-culmination in section 5 accounts for how the action-goal configuration, which will be called here *Goal-Directed Trajectory* (GDT), influences the non-culminating construal.

3 Varieties of Non-culmination: Lexical Meaning of the Verb and Its Relation to the Negated Result State

Non-culmination is an umbrella term that covers a variety of cases. Talmy (1991) supposed that English had only one case of non-culmination, namely *wash*-verbs (section 3.1). Later, however, several groups of verbs, or more exactly vPs, were proposed in European languages (English, French, German) as compatible with the non-culminating reading (cf. Martin & Schäfer 2012, 2017, Martin 2015, Demirdache & Martin 2015). According to the data reported on Mandarin Chinese, Japanese, Korean, Hindi, Thai and several other languages (cf. the ref-

erences in sections 1 and 2), the possibility of non-culminating reading extends in these languages to verbs whose English, French and German lexical counterparts are necessarily culminating.[3]

Various cases consistently reported in the literature on European and non-European languages are classified below into 5 groups according to the lexical meaning of the verb and its relationship with the result state negated in the *but*-clause.

3.1 Wash-*Verbs*

The transitive verbs in (6a) do not include the change of state of the theme entity in their lexical meaning. This contrasts with the transitive verbs in (6b, c), whose lexical meaning includes a change of state of the theme.

(6) a. John washed/ ironed the shirt/ wiped the table/ treated the patient, but the shirt is still not clean/ not smooth/ the table is not dry/ the patient is not getting better.
b. John cleaned the table, #but it is still not clean.
c. John corralled the horse, #but it is still not in the corral.

The verbs in (6a) are activity verbs, or *manner* verbs in terms of Levin & Rappaport Hovav (e.g. 2013), and the nature of these activities is such that their temporal duration is not limited by the spatial extension of the theme entity: in principle, nothing excludes washing/ironing the shirt, treating the patient, etc. indefinitely. In this sense they are different from classical quantized-theme verbs such as creation and consumption verbs.

According to Talmy (1991), the expected result in (6a) (*the shirt be clean*, etc.) is nothing but a pragmatic implicature. The requirement of *but* in the negative clause of (6a) seems to be due to the same pragmatic inference as in (7), with a genuine unergative activity verb.

(7) Mary didn't sleep last night but she is not tired today.

3 It is worth noting, however, that the lexical meaning of a verb may evolve. An example thereof is the French verb *assassiner* ('assassinate'). According to the Littré dictionary (1873–1877), this verb had both a culminating and a non-culminating meaning, the latter preserved to the 18th century (https://www.littre.org/definition/assassiner). The latter use is illustrated in the dictionary by the following example: "On assassina Luc [le roi de Prusse Frédéric II], et on l'a manqué" (*They assassinated Luc* [*Frederick II, the king of Prussia*]*, and missed him*), Voltaire, Lettre à d'Alembert, février 1762 (*Voltaire, Letter to d'Alembert, February 1762*).

Yet, the implicature in (6a) is not exactly of the same origin as in (7). The vPs in (6a) activate a complete situation template available in the comprehender's mind in which the human subject's action is motivated by the previous (unsatisfactory) state of the shirt/table/patient and is performed with intent to achieve a certain aimed state of the theme entity. In brief, despite the fact that the verbs in (6a) are atelic (activity) verbs, the vPs in (6a) are nevertheless assigned a (telic) action-goal template, or as we will call it, a Goal-Directed Trajectory (GDT). One could object that this pseudo-telicity is pragmatic. The point is that our neural comprehension system uses all the information it can as soon as it can, largely relying both on hardwired mental conceptual schemas and situation templates acquired by experience and stored in our memory (Kutas & Federmeier 2000: 467). This principle implies that the comprehender cannot freely use any kind of pragmatic inferences. Her range of available conceptual schemas is limited to those that are activated under the construal of the meaning of lexical items merged into phrases in syntax.

Tatevosov (2008) distinguishes two non-culminating readings (cf. also Tatevosov & Ivanov 2009). In the first, termed "Failed Attempt", the state of the theme entity does not undergo *any* change (cf. section 3.5). In the second, termed "Partial Success", a quantized theme undergoes *some* changes (cf. section 3.4). In (6a), where: (i) the agent's goal (make the shirt clean) is not included in the verb's denotation and (ii) the theme is not quantized and may (but need not) undergo some gradual changes along a scale specified in the *but*-clause (the shirt may be cleaner/smoother than before) but these changes do not realize the goal, neither reading is applicable *stricto sensu*. The fact that the theme entity may undergo some scalar changes correlates with a 'weak' reading of the negation in sentences with a non-intentional subject. In (8), as well as in Martin's (2015) example (2b), the negative clause does not negate the existence of effects but only their expected degree. In this 'weak' case, the negative clause is not judged as contradictory but only as incoherent.

(8) The sea washed the shore ??but it is still not clean.

However, with respect to the applied conceptual schema of a goal-directed trajectory (GDT), in which possible changes do not realize the goal, sentences with *wash*-verbs are rather interpreted as Failed Attempt.

3.2 *Transfer Verbs*

Martin & Schäfer (2012, 2017) discussed a range of verbs in French and German that license a non-culminating reading when combined with an agentive (human) subject. The authors termed them "defeasible causative verbs".

The majority of the verbs discussed are ditransitive (or indirect object) verbs like *teach, show, explain*, illustrated in (9). We will call them "transfer verbs". It should be observed that in the case of transfer verbs, non-culmination does not involve the theme entity change of state but the recipient's (failed) change of state (see (9a) and (9b) below).

The difference between the French and English versions in (9a) and (9b) consists in that in French the recipient argument is a prepositional indirect object, independently of whether the subject is agentive (human) (9a) or not (9b). In English a prepositional object is licensed with a human subject (9c) while the non-human subject is associated with obligatory culmination in double object VPs of the form V NP NP (9d), but is not grammatical in the otherwise synonymous V NP PP structure (9e) (cf. e.g. Oehrle 1976).

(9) a. Macha a enseigné à Jean le russe, mais il n'a rien appris.
'Masha taught Russian to Jean, but he learned nothing.'
b. La vie a enseigné à Jean l'humilité, #mais il n'a rien appris.
'Life taught Jean humility, but he learned nothing.'
c. Masha taught Russian to John, but he learned nothing.
d. Life taught John humility, #but he learned nothing.
e. #Life taught humility to John.

This syntactic constraint cannot be part of the lexical entry of *teach, explain, show*, etc. in a grammar without global rules. We propose that the non-culminating reading of transfer verbs, in e.g. (9a), is related to the intentional GDT assigned to the human subject, in the same way as with *wash*-verbs. A GDT is trivially directional and is defined by an internal time extending from the intention to the goal. The preposition *to* being directional, in (9c) it adds an internal time defining a GDT, and hence requires an intentional subject. In French, however, the preposition *à* is locative; the directional meaning is brought about by directional verbs: *Pierre est à l'école* ('Pierre is in the school') vs *Pierre va à l'école* ('Pierre is going to the school'). This makes *à* compatible with both a GDT in (9a), in which the perspective is assigned to the subject, and with a retrospective causal reading in (9b), where the perspective goes from observing the effects (Jean's humility) to their (presumed) cause. The retrospective perspective is assigned to the speaker and lacks internal time.

Martin & Schäfer (2012, 2017) account for the contrast between (9a) and (9b) in terms of a sublexical modal component equipped with an energetic modal base.[4] When the subject is agentive (9a), the modal base contains causally suc-

4 Koenig & Davis (2001) define a sublexical modality component as a type of semantic inform-

cessful worlds. When the subject is non-agentive (9b), there is still a sublexical modal component, but the modal base is circumstantial realistic. It is not clear, however, where the sublexical modal component comes from given that the verb does not contain a modal morpheme, unless it is assumed that it is contributed by perfective aspect (cf. 3.4).

We propose that, just as with *wash*-verbs, the lexical meaning of transfer verbs does not include the recipient's change of state. In this sense, they can hardly qualify as causative. However, these verbs do activate conceptual associations with a responsive recipient-internal process: *teach—learn, explain—understand, show—see, tell—hear and be aware of what is told*.[5] The intentional subject's GDT in sentences like (9a) is aimed at causing such a recipient-internal process. In this sense, these verbs can indeed be viewed as causative. However, associated recipient-internal processes are such that the intentional subject has no control of them and even no access to them (contra Demirdache & Martin's (2015) *Agent Control Hypothesis*). As pointed out by Pulvermüller (2018), a teacher has no access to the learner's internal state as they have no shared reference object. In this respect, the French verb *enseigner* ('to teach') contrasts with the verb *apprendre* on its indirect-object use. The latter denotes both teaching and learning processes, so that the two processes are not separable from each other, *apprendre*-teaching entailing *apprendre*-learning.

(10) Macha a appris à Jean le russe #mais il n'a rien appris.
'Masha successfully taught Jean Russian but he learned nothing.'

With transfer verbs that do not lexically entail the recipient-internal process, the two processes (*teach-learn, explain-understand, show-see*, etc.) are dissociated. Masha can go on teaching John Russian even if she is aware that John will never learn anything. As for John, his (in)ability to learn may depend on a range of factors independent of teaching, such as attention, motivation, etc. In short, sentences with transfer verbs and intentional subjects involve *two* distinct pro-

ation encoded by the verb which evaluates the relationship between the event participants at various world and time indices.

5 In the specific case of *offer*, defined in Martin & Schäfer (2012) as "willing to give", i.e. as a modal future-oriented state, Martin & Schäfer postulate a sublexical modal component which licenses the non-culminating reading even with a non-agentive subject, e.g. *The circumstances offered him a great job, but he chose another option*. Piñon (2014) argues that *offer* is stative with non-agentive subjects. On his analysis, *offer* is a possibility put at the disposal of the recipient, and the result state is a possibility to accept. Given the modal and/or stative properties of the verb *offer*, it will not be taken into account here.

cesses, an external one, on the part of the subject, and an internal one, on the part of the recipient.

When the subject is non-agentive (non-human), as in (9b), there is still a human recipient. His state, and the (presumed) cause that has led to this state, is necessarily described from the external viewpoint. This viewpoint is assigned to the speaker-narrator, external to the discourse world. The speaker having access to both the recipient's state and its (presumed) cause, her viewpoint is often undistinguishable from the recipient-acting-as-narrator viewpoint, that is, the recipient recalling a past causal event.[6]

Transfer verbs, like *wash*-verbs, are not classical incremental theme accomplishments (*write a letter, eat an apple*). What distinguishes them from *wash*-verbs is that, being ditransitive (or indirect-object verbs), they trigger an additional conceptual schema relative to a recipient-internal process.

3.3 *Transitive Psychological Verbs*

In agentive sentences with transitive psychological verbs like *inciter* in (11a), the vP argument (*Jean*) may be interpreted as either theme or patient/experiencer.

(11) a. Marie a incité Jean à la vengeance (mais en vain).
'Marie incited Jean to vengeance (but in vain).'
b. Le meurtre de son frère a incité Jean à la vengeance (#mais en vain).
'His brother's murder incited Jean to vengeance (but in vain).'

The role of theme is activated within the atelic (activity-like) reading of the verb; here, the *theme* is an event participant that is targeted by the subject's

6 Martin & Schäfer (2012) mention some at first glance intriguing cases like (i) (their (17a)). In (i), which contrasts with (ii), non-culmination turns out to be compatible with a non-agentive subject.

(i) *Clairement, cette situation leur a bel et bien montré le problème! C'est fou qu'ils ne l'aient pas vu!*
'Clearly, this situation well and truly showed them the problem! It is crazy that they didn't see it!'

(ii) *Cette situation leur a montré le problème, #mais ils ne l'ont pas vu.*
'This situation showed them the problem, but they didn't see it.'

The problem raised by (i) is easily explained within our approach. In (i) the all-knowing speaker intervenes to dissociate himself from the recipient: cancelling the effects on the intended recipient does not entail cancelling the cause since the effects do hold for the speaker. In (ii), where no such intervention occurs, there is no dissociation between the speaker's perspective and the recipient's viewpoint. As pointed out by an anonymous reviewer, such pragmatic modulations occur without a need to incorporate them into the semantics of the morpheme.

activity without being affected by it. Yet, similarly to *wash*-verbs and transfer verbs, this reading is not exactly atelic as it is associated with a goal-directed intentional trajectory.

Psychological verbs differ from *wash*-verbs and transfer verbs in that the intended goal is inscribed in their lexical content (*incite* (*to*), *amuse, reassure*, *encourage*, etc.). However, in the same way as with *wash*-verbs and transfer verbs like *teach* and *explain*, the agent's activity may continue after attaining its lexicalized goal, when the theme participant already has the inspired feelings. Although the agent can control her own action, she has no access to the theme participant's feelings and hence has no control of the effects of her action, in the same way as with transfer verbs.

Generally, the assignment of a psychological state to a participant activates the experiencer role. Putting aside the *but*-clause in (11a), the culminating reading of the vP makes it possible to assign the experiencer role to Jean. However, within the event template of a GDT, the sentence is interpreted as being about the agent (*Marie*) and her successfully achieved change-of-state goal. This template does not activate the experiencer role but the patient role for the undergoer of the change of state. As for the experiencer role, it is associated with the result-state template due to the speaker's retrospective perspective in which the event described in vP is not a GDT but a Cause. Under the latter construal, Marie may have incited Jean to vengeance without intending this result and/or there was no action at all on her part (cf. Ruwet 1995, Mari & Martin 2009). In (11b), the result-state template, and hence the speaker's point of view, is the only option. The only human participant, Jean, is assigned the experiencer role while the vP event with a non-human subject, itself entailing an event, is a Cause.

Sentences with transitive psychological verbs raise the question, which has no consensus in neurolinguistic literature, of whether thematic roles are assigned during the syntactic processing (Malaia et al. 2013)[7] or, as proposed in "Syntax-First" models, at the following stage, when the syntactic structure, the semantic meaning and other relevant information are assembled together (Bornkessel et al. 2005, Friederici 2017). It is assumed that the locus of this complex processing is the left posterior superior temporal sulcus (pSTS) (Bornkessel-Schlesewsky & Schlesewsky 2009, Friederici et al. 2017, Friederici 2017), while its right-hemispheric counterpart is involved, according to Saxe (2006), in (non-linguistic) interpreting human actions in terms of goals. Be that as

7 In linguistic literature this standpoint is supported e.g. by Jackendoff's "Parallel Architecture" theory (Jackendoff 2009), and by Ramchand (2008, 2018).

it may, we assume that thematic roles assignment is associated with specific conceptual configurations licensed by the feature ±*animated* (usually ±*human*) interpreted as ±*intentional*. As observed in Bornkessel-Schlesewsky & Schlesewsky (2009), the feature ± *animated*, and hence, arguably, ±*intentional*, traditionally viewed as semantic, is involved in syntactic processing beginning with its early stages (cf. section 1).

3.4 *Incomplete Accomplishments*

Tatevosov and colleagues qualified vPs like (12) as "Partial Success" accomplishments (Tatevosov 2008, Tatevosov & Ivanov 2009, Lyutikova & Tatevosov 2010, Tatevosov 2017). The vPs in (12) are typical incremental theme accomplishments (cf. Krifka 1998, Rothstein 2004). Their *not-complete* non-culmination does not require the subject's intentionality (cf. Beavers & Lee (2020) for a similar claim). It is compatible with intentional subjects (12a), non-human subjects (12b), accidental human actions (12c), as well as with unaccusative and anticausative verbs (cf. Kearns 2007) (12d).

(12) a. John ploughed the field/ filled (in) the form/ painted the wall, but not completely.
b. The fire destroyed the village, but fortunately not completely.
c. John accidentally painted the wall, but fortunately not completely.
d. La rivière a gelé, mais pas complètement.
'The river froze but not completely.'

The main feature that distinguishes the vPs in (12) from the cases examined in 3.1–3.3 is that the process of the patient's change of state starts and ceases at the same time as the agent's activity (12a, c) or as the causal event (12b). Given that the object is quantized, the right boundary of the event is limited by the object's dimensions (cf. Verkuyl's (1989) "specified quantity of A", +SQA). In sentences with an intentional subject this boundary may coincide, or not, with the agent's intention to *finish* her activity or to cease it voluntarily before attaining the object's spatial boundaries. As the verb *finish* implies intentionality and triggers a GDT, non-intentional subjects are not compatible with a *not-finish* vP in the *but*-clause (cf. Martin 2019, Arche 2014).

(13) The fire destroyed the village, # but it didn't finish destroying it.

The situation is slightly more intricate with degree-achievements-like accomplishments (*bake the cake*). In this case the right boundary of the event is a conceptually or contextually given point of an object-internal process which

can be described by an anticausative verb (cf. Hay et al. 1999, Kennedy & Levin 2008, Piñon 2008, Martin 2019). We will not enter into the details of this particular case: it boils down to defining the point at which the cake is (sufficiently) baked.

We will assume, with Martin (2019), that sentences with incomplete accomplishments are true at the coarse granularity level, but false at a finer granularity level, and that their truth or falsity depends on a non-maximal or maximal reading of the (in)definite DP argument. More importantly, we assume that incomplete accomplishments crucially differ from the other cases of non-culmination in that their culmination point is not given by an activated conceptual configuration, but is determined externally, typically by the spatial extension of the object. This property makes them insensitive to the intentionality requirement, which is crucial for all the other cases of non-culmination. Hence, this case will not be taken into account in the following part of this chapter.

3.5 *"Failed Attempt" Accomplishments*

The most striking case of non-culmination is one in which the verb seems to lexicalize culmination in an achievement-like way, yet the sentence is still compatible with a negative *but*-clause. This configuration is termed "Failed Attempt" in Tatevosov (2008) (cf. also Tatevosov & Ivanov 2009, Lyutikova & Tatevosov 2010, Tatevosov 2017). Such cases are found in, among other languages, Mandarin Chinese, as illustrated in Talmy's example (1a) repeated in (14), in Japanese (15), Korean (16), Hindi (17).[8] As pointed out by various authors, non-culmination is only possible if the subject is human (intentional).

(14) *wǒ shā le tā (dàn-shì méi shā sǐ)*
I kill PFV him (but-not PST kill die)
'I killed him but he was not dead.'

(15) *Hanako-ga doa-o sime-ta kedo mada simat-tei-nai.*
Hanako-NOM door-ACC close-PST but yet close-TEI-NEG
'Hanako closed the door but it is not closed yet.' (Kiyota 2008)

8 The abbreviations used in glosses are the following: PFV 'perfective', IPFV 'imperfective', PST 'past tense', NEG 'negation', DECL 'declarative', PASS 'passive', COMP 'complementizer', M/F 'masculine/feminine', NOM 'nominative', ERG 'ergative', ACC 'accusative', LOC 'locative'.

(16) *ku-ka changmwun-ul kkay-ss-ta haciman changmwun-i*
he-NOM window-ACC break-PST-DECL but window-NOM
kkay-ci-ci anh-ass-ta.
break-PASS-COMP NEG-PST-DECL
'He broke the window. But it was not broken.' (Beavers & Lee 2020)

(17) *miiraa ne kamiiz Taangii par wo Taangii nahĩ̃*
Mira ERG shirt hang-PFV but it hang NEG
'Mira hung the shirt but it did not hang.'[9] (Singh 1998)

In certain languages, a perfective marker, such as *LE* in Mandarin Chinese and the perfective suffix in Hindi, does not entail culmination. The verbal *LE* in Chinese is a marker of terminativity: it can be used with activities. With accomplishment-like VP's similar to *write* (*a*) *letter* it sometimes indicates terminativity and sometimes culmination, depending on the unbounded (massive-like) *vs* bounded reading of the singular NP (Soh & Kuo 2005, Soh & Gao 2006, Song 2018). Similarly, the perfective verbal suffix in Hindi does not entail culmination; it can be used with verbs denoting atelic events (Singh 1998, Altshuler 2013). The Japanese particle *-ta*, although sometimes labelled a 'perfectivity marker' (Singh 1998, Tsujimura 2003), is rather a past tense marker. Korean possesses only a past tense marker (Beavers & Lee 2020). In Thai, the perfective markers discussed in Koenig & Muansuwan (2000) do not entail culmination; some of them (e.g. *maa*) do not require the event to be bounded in the past and are compatible with past, present and future readings.

In English and French, perfectivity boils down to terminativity as well. The English simple past and the French *passé composé* combine with activity verbs, triggering a terminative reading: *Mary danced/Marie a dansé*. However, while the passé composé also entails terminativity with stative verbs, the English simple past is aspectually "neutral" with states (Smith 1997): *Mary loved John* > *Marie a aimé Jean* (passé composé)/*Marie aimait Jean* (imparfait). Setting aside explicit telicity markers in English such as particles and resultative clauses, the culminating reading is strongly implicated (and possibly entailed) when terminativity expressed by these past tenses interacts with lexical telicity located at the VP/vP event description level.

Processes denoted by telic unaccusative and anticausative verbs cannot but culminate when combining with terminativity (except the case of incomplete accomplishments, cf. 3.4). When the process is transitive, as in (14)–(17), the

9 Singh's (1998) translation: 'Mira tried to hang the shirt, but couldn't'.

possibility of non-culmination boils down to the question as to whether, at the lexical level, an achievement-like telic VP (*close the door, break the window, hang the shirt*) can refer to the *do*-component of the process without entailing the change of state of the object. This does not seem to be the case in English and French, where a sentence like *#John opened the door but it didn't open* appears contradictory as its first clause entails the door's change of state.

Processes like *open the door* seem to be similar to right-bounded achievements (*attain the summit*). However, as pointed out in Piñon (2008), the latter presuppose a preparatory phase, which is out of the scope of the negation in a sentence like *John didn't attain the summit*. Such is not the case in *John didn't open the door* or *John didn't kill the chicken*, which qualify as accomplishments not only because they imply some scalarity but also because they have a well-defined left boundary (cf. Piñon 2008). Still, these accomplishments clearly differ from the canonical incremental theme accomplishments in that their *telos* is not defined by the extension of the object, but is, rather, lexicalized by the verb.

Vendlerian event types are generalizations of the way in which processes are conceptualized. In contrast, lexical items are language-specific phonological exponents of strings of features. For instance, the question of whether Mandarin Chinese has monomorphemic achievement and, most especially, accomplishment verbs is controversial (cf. e.g. Tai 1984, Soh & Kuo 2005). According to Song (2018), Mandarin has very few monomorphemic achievements and "probably no" monomorphemic accomplishments. According to Tai (1984), there are three types of verbs in Chinese: states, activities and results (punctual achievements). Accomplishments are realized by resultative V_1-V_2 compounds in which V_2 describes either the state brought about by the V_1 event, as in *xué huì* ('study-know' =*learn*) or a punctual result attainment, as in *shā sǐ* ('kill die') in Talmy's example (1b/14) or *xiě wán* ('write-finish') (cf. Tai 1984, Soh & Kuo 2005, Soh & Gao 2006).

Resultative V-V compounds are also used to mark culmination in Japanese (18a), in Hindi (18b), and in Thai (in post-VP position, cf. Koenig & Muansuwan 2000).

(18) a. *watashi-wa keeki-o tabeteshimatta.*
I-NOM cake-ACC ate-finish-PFV/PST
'I ate the cake up.' (Singh 1998)

b. *mãẽ ne kek khaa liyaa.*
I ERG cake eat take-PFV
'I ate the cake up.' (Singh 1998)

The question as to which features are lexicalized by a monomorphemic verb can be idiosyncratic, especially in the case of accomplishments because of their composite nature. It seems plausible that in languages in which some 'satellites', in the sense of Talmy (1990, 2000), especially V_2 in V_1-V_2 compounds, are available for marking culmination, monomorphemic verbs tend to be associated with the characteristic features of activities. For instance, in the same vein as Talmy (1991), Basciano (2015) noticed that the Chinese *shā* ('kill') "is more like *perform an action aimed at killing someone*".

Koening & Muansuwan (2000) propose, for Thai, that perfective aspect functions as a partitive maximality operator which requires a maximal stage, but not necessarily culmination, of the event in the extension of the VP it combines with. A similar view is supported by Altshuler (2013) for Hindi. As this aspectual operator starts with a complete event in its extension, it is assumed to be associated with a 'sublexical' modal component (Koenig & Muansuwan 2000, Koenig & Davis 2001, Martin & Schäfer 2012, 2017) which triggers one or another kind of inertia modality (Bar-el et al. 2005, Tatevosov 2008, Tatevosov & Ivanov 2009).

However, these accounts disregard the crucial condition, namely the agent's intention, without which the non-culminating reading is either incoherent or contradictory (cf. Beavers & Lee 2020). We propose that all cases of non-culmination (except incomplete accomplishments, cf. 3.4) are based on the interplay between the intentional subject's prospective perspective on the event and the speaker-narrator's retrospective perspective, the two perspectives being located at two different syntactic levels (cf. section 5). Various authors indicate that native speakers' judgments on the non-culminating reading may vary (cf. e.g. Tsujimura (2003) on Japanese, Martin (2015) on French, Yagi (2019) on English). These hesitations do not depend on grammaticality judgments. Rather, they show that there are two ways to construe an event, either from the subject's prospective perspective and her efforts towards the goal or from the retrospective speaker's perspective.

4 Russian Secondary Imperfective Aspect and the Controversy of the 'Delimitative' PO-

In Tatevosov and colleagues' work on non-culmination (Tatevosov 2008, Tatevosov & Ivanov 2009, Lyutikova & Tatevosov 2010, Tatevosov 2017), the semantic treatment proposed by the authors is typically based on sentences in Russian in which a prefixed imperfective verb (a *secondary* imperfective, cf. 4.1) is equipped with an additional PO-prefix, the so-called 'delimitative' PO-, as illustrated in (19a, b) (examples (16a, b) in Tatevosov & Ivanov 2009, the translation is theirs).

(19) a. *Vasya po-otkry-va-l dver' (i brosil).*
Vasya PO-open-IPFV-PST.M door.ACC (and give_up.PFV-PST.M)
'Vasya tried to open the door for some time (and gave up).'

b. *Vasya po-zapoln-ja-l anketu (i brosil).*
Vasya PO-fill-IPFV-PST.M form.ACC (and give_up.PFV-PST.M)
'Vasya spent some time filling in the form (and gave up).'

However, Gyarmathy & Altshuler (2020, fn 18) observed in relation with these examples that "it makes no sense to talk about culmination with respect to PO-perfectives" because "PO-perfectives are atelic". This controversy calls for some comments. Our comments will be limited to two questions: (i) how Russian *imperfective* aspect is relevant to the non-culmination issue despite the fact that non-culmination *is* an issue only when the aspect is perfective; (ii) how 'delimitative' PO- in (19) is not relevant to this issue.

4.1 *Russian Inflectional (Secondary) Imperfective Aspect and (Non-)Culmination*

Russian aspect has a double nature. On the one hand, it is lexical (or "verb-classifying", cf. Arkadiev & Shluinsky 2015) in the sense that any monomorphemic verb is either imperfective or perfective. The majority of monomorphemic verbs are imperfective. For instance, the monomorphemic verb *kryt'* (something like 'cover', e.g. *kryt' kryšu* 'cover.IPFV (with a) roof.ACC'), which is part of the bimorphemic *ot-kryt'* ('open.PFV') in (19a), is imperfective at the lowest lexical level, the V-level. However, some monomorphemic verbs (change-of-state verbs) like *stat'* ('become'), *sest'* ('sit_down'), *dat'* ('give') are perfective. Perfectivity, although closely related to lexical telicity, means not only that the process has a *telos*, but also that the verb denotes a unique (*at most* one) process which is construed from a retrospective (perfective) viewpoint, i.e. as having attained its *telos*.

Bimorphemic verbs are derived, as in German or Dutch, by attaching a derivational ("lexical", in Svenonius' 2004 terms) prefix to a monomorphemic verb, be it imperfective (in most cases) or already perfective. Derivational prefixes have a low, VP-internal, attachment point (cf. Babko Malaia 1999, Svenonius 2004, Romanova 2004), so that derived bimorphemic verbs are "prone to lexicalization and semantic non-compositionality" (Arkadiev & Shluinsky 2015).[10] The great majority of prefixes are derived from locative/ directional prepositions which communicate directionality to the process denoted by the root verb. What distinguishes Russian from German and Dutch is that the prefix makes the bimorphemic verb not only telic but also perfective, i.e. it describes the process from a retrospective point of view, as having attained its *telos*, just as with monomorphemic perfective verbs.

This system is viable because there is an inflectional suffix, *-yva-* (*-va-/-a-*), which heads an Aspect Phrase mediating between the event description below it in VP or vP and the Tense Phrase above it. This functional morpheme makes it possible to derive the so-called secondary imperfective from the majority of prefixed perfective verbs without changing their lexical meaning. This is the case of the trimorphemic imperfectives *ot-kry-va-t'* (ot-V-va 'open.IPFV') in (19a), and *za-poln-ja-t'* (za-V-ja 'fill_in.IPFV') in (19b). Imperfectivised prefixed verbs (secondary imperfectives) keep their directionality (goal-orientedness) contributed by the prefix throughout the derivation.

The Russian imperfective aspect shares with the canonical imperfective viewpoint aspect (cf. e.g. Smith 1997) the property of describing an event, whether atelic or telic, as unbounded. However, this unboundedness can manifest itself at two levels, depending upon the temporal location of the reference time. The canonical imperfective viewpoint aspect meaning arises when the contextually defined reference time is included into the temporal trace of the event (Smith 1997). This case boils down to a progressive reading of the vP, as in (20).

(20) *Vasya za-poln-ja-l anketu, kak vdrug zazvonil*
Vasya za-fill-IPFV-PST.M form.ACC when suddenly za-ring-PFV-PST
telefon.
phone.NOM
'Vasya was filling (in) the form when suddenly the phone rang'.

10 This tendency, typical of derivational aspectual systems (cf. Arkadiev & Shluinsky 2015), is confirmed by neurolinguistic studies which observe that, in contrast to inflectional morphemes, derivational morphemes are retrieved together with their stems, as full words stored in the memory. The latter data are based on morphologically rich languages such as Polish (Bozic et al. 2013), Russian (Klimovich-Grey & Bozic 2017), German (Hanna & Pulvermüller 2014).

Another meaning arises when the reference time is interpreted as located at the speech time. Then the unbounded time interval extends by default from some unspecified time point in the past up to the speech time. This interval is equivalent to the so-called *perfect time span* (Klein 1992, Kiparsky 2002). The event being unbounded as well, the perfect time span is filled in with an undetermined number of events (a *sum*, in the sense of Link (1983), made of *at least one* event). This configuration yields the existential (experiential) perfect meaning (Vogeleer 2017).[11] The time span can also be bounded externally by a *for*-adverbial, deriving a configuration that corresponds to the terminative perfective viewpoint aspect. The common feature of the existential perfect meaning and the terminative perfective meaning is that in both the reference time is located at the speech time and the viewpoint is that of the speaker.

Altshuler (2013) argues that an imperfective operator (imperfective aspect) requires a *stage* of an event such that this stage is neither necessarily maximal nor necessarily a proper part of the event to which the predicate applies. In other words, if the event is telic, which is the case with all secondary imperfective verbs, and the reference time is located at the speech time, Russian imperfective aspect is compatible with both culminating and non-culminating readings: the former corresponds to the maximal part and the latter to a proper part of the event.

However, as shown in (21a, b), the two options are available only if the sentence has an intentional subject. In (21a), where the subject is intentional, the vP with a secondary imperfective can have either an existential perfect reading or, with a *for*-adverbial, a terminative perfective reading. The two readings are compatible with both non-culmination and culmination. In contrast, in (21b), where the subject is non-intentional, the predicate is incompatible not only with the non-culminating reading but also with imperfective aspect *tout court*.

(21) a. *Vasya pro-bi-va-l dyru v stene (dva dnja)*
V. through-strike-IPFV-PST.M hole.ACC in wall.LOC (two days)
no ne pro-bi-l/ i pro-bi-l.
but not through-strike.PFV-PST.M and through-strike.PFV-PST.M
(Lit.) 'Vasya pierced.IPFV a hole in the wall (for two days) but didn't pierce.PFV it/ and pierced.PFV it.'

11 In the Russian linguistic tradition this case is known as *obščefaktičeskoe značenie nesoveršennogo vida* ('general factual meaning of imperfective aspect'), which is sometimes divided into more detailed categories (cf. e.g. Padučeva 1996).

b. *#Snariad pro-bi-va-l dyru v stene*
shell through-strike-IPFV-PST.M hole.ACC in wall.LOC
(*dva dnia*) (*no ne pro-bi-l/*
(two days) but not through-strike.PFV-PST.M
i pro-bil).
and through-strike.PFV-PST.M
(Lit.) '#The shell pierced.IPFV a hole in the wall (for two days) (but didn't pierce.PFV it/and pierced.PFV it).'

In (21a), the perfect- (or *for*-) time span is filled in with a plurality of Vasya's actions unified by his intention to attain the goal; this licenses both the non-culminating and the culminating reading. When the unifying goal-directed intention is not available, as in (21b), the relevant time span can only be filled in with a plurality of events each of which is necessarily culminated. This option is only available, however, if the subject and/or object NP is plural, as in (22).

(22) *Takie snariady legko pro-bi-va-l-i dyry v*
such shells easily through-strike-IPFV-PST-PL holes.ACC in
stenax.
walls.LOC
'Such shells easily pierced.IPFV holes in walls.'

Altshuler's (2013) definition of imperfective aspect in terms of *stages* which are neither necessarily maximal nor necessarily proper parts of the event is only applicable to sentences with an intentional subject, in which the subject's goal-directed intention unifies stages of her action as parts of one and the same event, whether culminated or not. When the intentionality requirement is not satisfied, the perfect- or *for*- time span can only be filled in with a plurality of events each of which is culminated.

4.2 *Delimitative PO-*

'Delimitative' PO- has been classified as one of the "superlexical", i.e. non-derivational, or inflexional, prefixes (Svenonius 2004, Romanova 2004). It has an adverbial-like meaning, similar, but, as will be argued below, not identical to the meaning of *for*-adverbials (for example, *for some time*, used in the translation of (19a)). While derivational prefixes originate VP-internally, delimitative PO- is assumed to have a high point of attachment in syntax (Babko-Malaya 1999, Svenonius 2004).

Note that the prefix PO- need not have a high point of attachment. It may also merge with a lexical root verb, fulfilling a derivational function within

V or VP. PO- is highly productive in this use and its meaning varies according to the type of monomorphemic verb it combines with. The 'delimitative' meaning of PO- arises when it is adjoined to unergative monomorphemic verbs which denote events lacking directionality. The most obvious example of this are motion verbs. Monomorphemic motion verbs form two classes, both of which are imperfective: (i) unaccusative verbs of directed motion; (ii) unergative non-directional (multidirectional) verbs, e.g. *idti* ('go', directional)—*xodit'* ('walk', non-directional), *plyt'* ('swim', directional)—*plavat'* ('swim', non-directional), etc. When PO- combines with an unaccusative directional motion verb, it functions as a derivational prefix, and the new bimorphemic verb acquires an inchoative perfective meaning: *po-yti v_magazin* ('*PO-go.PFV* (start going) into (the) shop.ACC'), *po-plyt' k beregu* ('*PO-swim.PFV* (start swimming) towards (the) bank.DAT'). That is, when a directional root already defines a goal-directed trajectory in the lexicon, PO- contributes a pre-event time with the event time, linearly. By contrast, when combining with non-directional motion verbs, PO- acquires a 'delimitative' meaning which does not modify the meaning of the root verb, but contributes a terminative perfectivity: *po-xodit' po komnate* ('po-walk.PFV in (the) room.LOC (for a while)'), *po-plavat' v bassejne* ('PO-swim.PFV in (the) pool.LOC (for a while)'). However, the function of PO- is not purely temporal-aspectual (terminative perfectivity). When PO- combines with unergative (non-directional) verbs, it has a measuring function, which consists in picking up a portion of the undirected activity (a massive, i.e. undirected, event) denoted by the verb, something like (*do*)*_a_bit_of walking/swimming*, in the same way as *a bit of sugar* picks up a portion of a mass. In this 'translation', the past tense of the light verb *do*, as in *John did a bit of swimming*, accounts for the temporal-aspectual function of PO-, while *a bit of -ing* translates its measuring function.

PO- can have this same function not only with unergative verbs but also with some transitive verbs, as in (23a). Russian being a determinerless language, the distinction between the (implausible) referential reading of the NP, as in (23b), and its non-referential reading, as in (23c), is not marked.

(23) a. *Segodnya utrom on počital knigu.*
This morning he PO-read.PFV.PST book.ACC

b. This morning he read a book for some time.

c. This morning he did a bit of book-reading.

When PO- is adjoined to a secondary (prefixed) imperfective verb, the measuring function of PO- deprives the verb of its directionality contributed by the

derivational prefix and turns the event into a massified (undirected) activity. In (24a) PO- is adjoined to a secondary imperfective *PO-pro-bi-va-t' dyru* ('PO-through-strike-IPFV hole.ACC'), in which the derivational prefix *pro-* ('through') provides directionality (goal-orientedness). The temporal-aspectual function of PO-contributes terminative perfectivity, which could be paraphrased by *for a while*. However, such a translation does not account for the measuring function of PO-. Though awkward, the translation in (24a) has the advantage of accounting for both the terminative perfective function of PO- (the simple past of the light verb *do*) and the measuring function (*a bit of -ing*). As shown in (24b), the delimitative PO- is compatible with neither the assertion nor the denial of the event culmination in the following clause. The 'best' continuation implicated by PO- is *... and abandoned/ gave up/stopped*.[12]

(24) a. *Vasya PO-pro-bi-va-l dyru i*
Vasya PO-[through-strike-IPFV]-PFV-PST.M hole.ACC and
brosil.
stop.PFV.PST.M
'Vasya did a bit of hole-piercing and stopped.'

b. *Vasya PO-pro-bi-va-l dyru (??) i*
Vasya PO-[through-strike-IPFV]-PFV-PST.M hole.ACC and
probil/ (??) no ne probil.
through-strike.PFV.PST.M/ but not through-strike.PFV.PST.M
'Vasya did a bit of hole-piercing and he pierced (it)/ but did not pierce (it).'

Gyarmathy & Altshuler (2020) are right to qualify delimitative PO-perfectives as "atelic" (cf. also Martin 2019), and hence not relevant to the (non-)culmination issue. But that is not the whole story: secondary imperfective verbs equipped with PO-, as in Tatevosov & Ivanov's (2009) examples (19a)–(19b) and in (24), describe the event not only as atelic but also as a portion of a massified event deprived of its original goal-orientedness.

12 This explains Tatevosov's intuitive judgment (Tatevosov 2017) that Vasya's tentative actions in (19a, b) are unordered, chaotic. This also explains why Tatevosov & Ivanov's translation of (19a) by *tried to* is misleading: while *tried to* lexically describes the subject's efforts towards the goal, the measuring function of PO- is responsible for the impression that Vasya performed some idle purposeless actions instead of striving to achieve the goal (in (19a), make the door open).

5 Intentional Subject, Speaker and Syntactic Structure

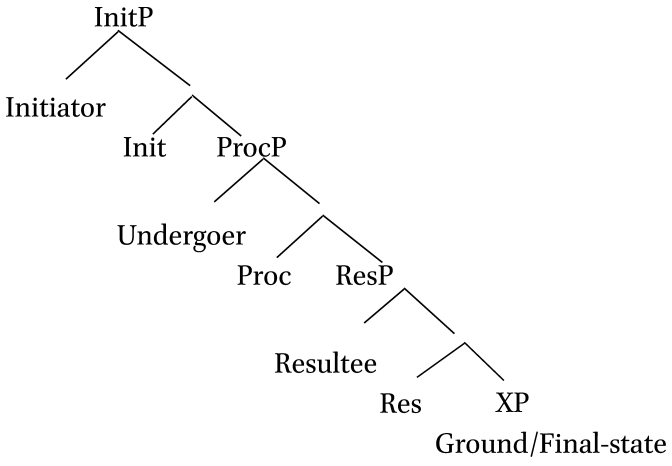
The overview of various cases of interaction between the lexicon and the morphosyntax in sections 3 and 4 allows us to propose a general solution to the problem of non-culmination which subsumes our observations in the preceding sections.

Since in languages like English, French or German the non-culminating construal only occurs with a small subset of verbs, one might seek a lexical-semantic account. For example, one could stipulate that with VPs like *wash the shirt, amuse the children, explain the rule*, etc., the result of the agent's activity is only an implicature (as was stipulated by Talmy 1991). However, that would not account for the fact that even with these verbs, culmination becomes obligatory with a non-intentional subject.

We propose that the key concept of the non-culmination phenomenon is an intentional Goal-Directed Trajectory. The GDT is a conceptual configuration, a pre-established pattern in the mind which emerges whenever a part of it (an intentional subject, a goal or an instrument) is triggered in syntax. Although the solution to the problem of (non-)culminating construals crucially involves both the lexicon and the syntax, it cannot be solved within either component of the grammar. Rather it involves the interaction between the lexicon and the morphosyntax on one level of the sentence structure, enriched by the interaction between syntactic structure and language-independent conceptual configurations on a higher, conceptual-intentional, level (cf. section 1).

In Ramchand's (2018) framework, in which semantic classification is associated with functional nodes, an accomplishment consists of the projection of three subevents of the event that vP describes onto three syntactic-semantic nodes: Initiation Phrase (InitP), Process Phrase (ProcP) and Result Phrase (ResP).

(25)



In this framework one might associate the non-culmination construal with a syntactic structure lacking a subject in the specifier position of ResP (and possibly of ProcP). However, it would then be necessary to add a condition stipulating that the lack of subject in Spec ResP is optional when the initiator is human but obligatory when it is non-human.

Here we assume a grammar with an autonomous syntax in which lexical entries cannot stipulate the manner in which their arguments are projected in syntax, and functional syntactic nodes, limited to checking formal features of lexical items, bear no semantic information. To do otherwise would be to stipulate the interpretive contrasts which need to be explained.

We assume that the syntactic structure is derived bottom up via iterative applications of the syntactic operation of Merge (Chomsky 1995): VP > vP > TP > CP. The derivation starts at the VP level by the merger of V and a nominal NP/DP complement (for a transitive (or unaccusative) sentence). On the vP level, which is a force-dynamic event description level, a +human DP merged in Spec vP may be construed as the Agent of the event *type* the vP denotes. The subject's agency lasts as long as she is carrying out her action, i.e. from the first to the last point of the event. By contrast, *the intention to achieve a goal* by carrying out the action is ascribed to the subject *before* the onset of the action, in the pre-event domain on the TP level. At this, structurally higher, TP/CP phase the event description is placed by the speaker in a discourse-related time. An event *type* described in vP thus becomes an event *token* in TP/CP (Gehrke & McNally 2015). The existence of the event in time and in a world is asserted by the speaker in CP, who anchors its worldly and temporal properties via Origo (the speaker's coordinates) (cf. Ramchand 2018). An Accomplishment always culminates in the event description at the vP level, otherwise it would not be an accomplishment (an event *type*). However, it may or may not culminate on the higher TP/CP level, where the event is placed in episodic time and its arguments may achieve referential status.

Conceptual configurations, while independent of the grammar, are triggered, among other, non-linguistic, stimuli, by words and phrases. Because a concept is an entire mental object, it is not necessary for every part of a conceptual configuration to correspond to every part of a syntactic structure. We propose that two particular conceptual configurations interact with syntax to determine whether a sentence asserts or denies culmination of an accomplishment defined in vP. One configuration is that of a Goal-Directed Trajectory (GDT) and the other is the notion of Point of View (PoV) associated with human entities.

Some lexical predicates, all VP accomplishments, all structures containing purpose clauses are associated with a conceptual configuration construed as

a GDT. A verb like *murder* lexically includes the culmination of a GDT, while verbs like *soigner* (*un patient*)/*treat* (*a patient*) or *expliquer* (*la règle*)/*explain* (*the rule*) include a GDT without lexically including its culmination, and therefore allow the non-culmination construal. Non-culminating accomplishments are formed freely in the grammar by the addition of a purpose clause to a vP denoting a culminated event.

(26) a. John_i went to Paris [PRO_i to see Marie]
b. [TP1 John_i T [vP1 [vP t_i [VP went [PP t_i to Paris]]]] [TP2 PRO_i to [vP2 t_i see Marie]]]

In (26), TP1 *John went to Paris* can be a culminated accomplishment (if (26a) is not followed by something like *but he took the wrong train and arrived in Lyon*). TP2 is a non-culminating accomplishment containing a non-finite directional tense morpheme *to*. From the point of view of the subject, the entire sentence TP1 is non-culminated since the goal is not yet attained. In fact, John may never have gotten to Paris. The speaker may accept the subject's non-culminating point of view. On the other hand, from the point of view of the speaker, TP1 may be construed as a causal structure: seeing Marie was the cause of a trip which was successful. The speaker may even invoke a cause which overtly contradicts the subject's claim as in *John said he went to Paris to sketch in the Louvre but he really went to Paris to see Marie*. Both situations illustrate what we may call the 'layering' property of non-culmination. A single event on the level of tense construal may contain coherent or conflictual points of view. Semantic classification of functional nodes, as in (25), cannot account for this layering property of the goal-directed structure. However, under either construal, the sentence must be coherent in syntax. In (26b) the prospective T2 merges with the matrix T1 within a Tense Chain (Guéron & Hoekstra 1988), and the anaphoric PRO subject of TP2 is bound by the agentive subject of TP1.

While a GDT controlled by an intentional agent may fail to culminate, an event not involving an intentional agent is not a GDT at all. It only involves the speaker's retrospective point of view.

Although the GDT is universally available, its syntactic realization in a particular language would depend both on the lexicon and on the morphosyntax. For example, in English the result state contributing culmination to an intentional activity may be represented by any category of small clause. In some other languages small clauses are restricted to verbal categories. This is the case in languages with serial verb constructions (e.g. West African languages of Kwa family; Suriname, Mauritian, Haitian Creoles), in which resultative small clauses are expressed by V2 of certain syntactic structures linearized as V1 (DP1)

V2 (DP2) (cf. e.g. Collins 1997, Veenstra & Muysken 2017). In Mandarin Chinese, Japanese, Thai, Hindi (cf. 3.5), it is V_2 of V_1-V_2 compounds that contributes culmination (cf. e.g. Beavers et al. (2010) on distinctions between serial verb constructions and V-V compounds). The difference between English-style small clauses and verbal small clauses would follow if non-verbal constituents lacking a formal Tense feature can be integrated into the finite Tense Chain defined in Guéron & Hoekstra (1988) in some languages, while only verbs, which lexically bear a T feature, can be so integrated in others.

We take Point of View (PoV) to denote a temporal perspective on an event by a human entity. The speaker implied by the speech act contributes a PoV on the higher syntactic TP/CP level. As the speaker's PoV includes the entire discourse background, she can supply referential (27a) or global discourse information, as in (27b). She can even attribute a goal to a state of affairs which is not intentional at all (27c). To accept (27c) is to attribute to the universe a goal-directed trajectory initiated by an intentional agent, which is probably not what the speaker really means.

(27) a. Oedipus wants to marry his mother.
b. Then, John poisoned Paul with this substance, but he didn't know that it was harmless.
c. Grass is green to aid photosynthesis.

On the vP level the temporal perspective of an intentional subject takes scope only over the event description. The subject's perspective is *prospective*: the subject can introduce a trajectory towards a goal such as change of state of an object, but she cannot know during the event if the goal will be reached. On the vP level, the intentional subject is an Agent and her prospective PoV is continuous internal to the event description. However, the subject's intention originates not in vP but before the onset of activity, on the TP level. On this level, there is an unavoidable temporal gap between the subject's intentional state of mind (in TP) and the onset of the activity in vP. The intentional property of the argument in Spec TP is transmitted to its trace in Spec vP, as in (28). We propose that here the mental properties of the subject in Spec TP combine with the physical properties of (the trace of) the same entity in Spec vP to create a subject capable of both intending and reaching a goal. The event description in vP denotes a necessarily intentional and necessarily culminating event.

(28) [TP $John_i$ T_{Past} [vP t_i [VP murder Bill]]]

The speaker's temporal perspective, located on the TP/CP level, takes the entire sentence in its scope and is *retrospective*. While the speaker, located outside the event world, cannot initiate an event, only the speaker can assert the successful culmination of an event (and the result state that follows from it), or the failure of culmination. The speaker-narrator's knowledge includes the intention of the subject-participant. Consequently, a state which seems to have no temporal role in VP, as in (27c), or an activity or accomplishment presented from the subject's PoV in vP may acquire a new temporal role, that of Cause, from the retrospective all-englobing perspective of the speaker on the TP/CP level. The speaker puts together all the pieces of the puzzle: her PoV creates a construal of the sentence which is more than the sum of its parts.

In addition to lexically-based and syntactically derived non-culminating accomplishments (*wash the shirt, explain the rule, amuse the children*), there are lexically-based and syntactically derived obligatory culminating accomplishments with human (cf. (28)) and non-human subjects (29b). In this case, the speaker, who perceives the existence of a state, retrospectively attributes it to a causal event. In (29a) the causal (from the speaker's PoV) event embeds the intentional subject's goal-directed trajectory. What takes ten minutes is the entire intentional event. In (29b) it is the sole causal event that takes ten minutes (cf. Martin 2019).

(29) a. Mary killed the mosquito in ten minutes.
b. The poison killed John in ten minutes.

We describe a non-culminating accomplishment as a palimpsest: it embeds an event description presented from the limited prospective PoV of an intentional subject in TP in which the intention is acquired within an assertion presented from the speaker's PoV in CP. The two Points of View are construed simultaneously. While the subject's temporal perspective goes from left to right, from intention to culmination, the speaker's retrospective perspective goes from right to left. In such palimpsestic structures, the coexistence of the two points of view creates a dynamic construal which simultaneously goes both left to right, starting with intention, and right to left, starting with a result. To ignore one of these points of view is to miss Full Interpretation.

Martin & Schäfer (2012, 2017) attribute non-culmination to a sublexical modal component with an energetic modal base. One or another kind of inertia modality is also evoked by other authors (cf. 3.2 and 3.4). However, inertia worlds exist independently of *intention* and refer to an implied time span following the time of the event vP describes. Within our account there is no need

to introduce an additional modal machinery, all the more so because the verbs in question do not contain a modal morpheme. The agent's prospective perspective on the goal of the event follows from the fact that the intentional subject occupies a position in Spec TP in which the property of intention is acquired and which binds an argument in Spec vP provided with physical force by the event description in vP. The non-culminated accomplishment marked by the speaker's *but*-clause identifies a palimpsest. There is a prospective event-internal PoV for the subject, but there is also a closed retrospective discourse world for the speaker who attests to the failure of the subject's attempt to reach, not the *telos* of her action, but the intentional goal that inspired the action and was supposed to coincide with the *telos*. Because the speaker's PoV dominates the subject's PoV, every non-culminating event can also be construed as a culminating event. This shows that the level of construal of (non-)culmination is the TP/CP phase, the only syntactic level which can manifest the speaker's point of view.

6 Conclusion

Neurobiological observations support the hypothesis of partial independence of the syntactic and lexical-semantic processes which combine to produce syntactic structures. The output of the syntactic component interfaces with a conceptual-intentional component. We have proposed that this component contains hardwired mental configurations which inspire and maintain syntactic structures, and that an account of non-culminating accomplishments requires reference to such configurations.

In particular, we pointed to the mental configuration of a Goal-Directed Trajectory in which an intentional source engages in a path toward changing the state of some targeted individual or object in the discourse world. We distinguished the Goal-Directed Trajectory, described from the prospective point of view of a subject participant located in the Specifier of TP, from the retrospective point of view of the speaker-narrator associated with the higher CP domain. While only an intentional (human) subject can inaugurate a GDT, only the speaker, who relates a perceived effect to its cause, can say whether the subject's goal was achieved or not. Non-culminated accomplishments thus need an overt commentary (a *but*-clause) by the speaker.

We have discussed non-culmination in several types of vPs in English and French. We have also discussed non-culmination in Russian both in sentences with secondary imperfective verbs and in sentences with complex secondary imperfectives with the 'delimitative' prefix PO-. We have shown under what

circumstances event culmination is possible, impossible, or optional in such sentences. This variety of interpretations cannot be understood without a palimpsestic construal of the sentence structure which encompasses two simultaneous points of view, the prospective point of view of the subject and the retrospective point of view of the speaker-narrator in CP.

Structures which have previously been analysed in descriptive terms turn out to depend on the interaction of precise grammatical mechanisms with specific mental configurations. Note that the matching of lexical and grammatical units with mental units is not necessarily one to one/parallel. Rather, like Marcel's experience with the madeleine dipped in tea, a single grammatical unit may introduce an entire meaningful configuration which was already in the mind, just waiting for an overt stimulus to trigger it.

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CHAPTER 7

Preterit and Perfect in Romance: New Insights from Occitan

Myriam Bras and Jean Sibille

1 Introduction

Like other Romance languages, Occitan can, at first sight, use different verb forms to report a past event. We will focus in this paper on two paradigms presenting a formal opposition—a simple structure, as in (1), vs. a complex structure as in (2), which in grammars or textbooks are often called *preterit* and *perfect* respectively:

(1) Joan **arribèt** a Tolosa (Joan arrived in Toulouse)

(2) Joan **es arribat** a Tolosa (Joan has arrived in Toulouse)

From a semantic point of view, these two paradigms[1] are often described along a perfective (or aorist) vs. resultative opposition, in fact pertaining to tense and aspect categories.

In this paper, our aim is to describe the semantic properties and functions of each paradigm and their use in oral and written data for one dialect of Occitan, the Lengadocian dialect. We thus hope to contribute to the semantic description of the tense and aspect system of Occitan, which, if we except Lafont (1967)[2] and Schlieben-Lange (1971), has not received much attention yet, even in Romance studies: Harris (1982), Fleischman (1983), Squartini and Bertinetto (1995) classify Occitan based on data analysed in Schlieben-Lange (1971), that need to be completed.

1 There also existed in Occitan a periphrastic preterit made up with the present of "aver" followed by the infinitive. In Catalan this periphrastic preterit supplanted the synthetic one. In Occitan, it only survives today in the Guardia Piemontese dialect (in Calabria), where, like in catalan, it has replaced the synthetic preterite, and, very sporadically, in certain local or literary uses, especially in gascon and provençal.

2 Lafont (1967) described the temporal and aspectual system of Occitan, from a Guillaumian theoretical framework.

In the following, we will name each paradigm based on the formal opposition: we will use the Simple Past (SP) / Compound Past (CP) terminology, corresponding to the simplex/complex distinction of (Fleischman 1983), and we will make use of form-based translations in English (an Occitan CP will be translated by an English present perfect, and an SP by a preterit, regardless of their meanings).

Our work is also driven by a didactic motivation. As Occitan speakers, we are aware of the difficulties met by learners and new speakers of Occitan who are native speakers of French, when describing past events in Occitan. Two tendencies can be observed: the over-use of CP in Occitan, modelled on the French use of CP; and the over-use of SP in Occitan, with very few uses of CP.

In previous work (Bras et al. 2015), we started the study of SP and CP by compiling prescriptive assertions found in Occitan grammars or textbooks (Alibert 1935, Camproux 1958, Martin & Moulin 2007, Miremont 1976, Romieu & Bianchi 2005, Salvat 1943, Sauzet & Ubaud 1995, Teulat 2008, Vernet 2000), which we compared with a list of semantic values provided by the analysis of oral data for the Lengadocian dialect collected in a field study in Quercy and Rouergue by Sibille (2015). We found that prescriptive studies generally do not capture all the semantic properties of SP and CP manifested in the native speaker oral data collected in Sibille (2015). We then decided to complement oral data with a large amount of written data in order to test the set of semantic values defined in Sibille (2015, pp. 223–227) for each form and to provide a more fine-grained description.

In this paper, we will first organize the set of values of Sibille (2015) in contrastive pairs (section 2). Then we will complete and analyse the data first presented in Bras et al. (2015) along this set of values, in order to draw a picture of how SP and CP are used in texts, in a data-driven analysis perspective (section 3). In the last part of the paper (section 4), we will contrast Occitan CP and SP to perfects and preterits in Romance and Germanic languages, based on the work of Squartini and Bertinetto (1995), Caudal and Vetters (2007) and Vet (2010).

2 Semantic Values of SP/CP

2.1 *Past Event vs. Present Resulting State*

Let us first examine an occurrence of each form, SP and CP, in use with the same verb *vendre* (to sell) to illustrate the aoristic value (3) and the perfect value (4):

(3) Quand lo paire moriguèt, **los cosins vendèron l'ostal**. (When the father died, the cousins sold the house)

(4) L'ostal l'an pas mai, los cosins, **l'an vendut**. (The house, they (= the cousins) don't own it any more, they have sold it)

Although the inflected verb *vendre* with its arguments (bold) describes the same event—the house selling event—in the two utterances, it is conveyed differently:

– in (3), the house selling event is described and located in the past of the speech time (and also after the father's death thanks to the subordinate clause),
– in (4), the house selling event is located in the past but we also understand that the state resulting from this event—"the house doesn't belong to the cousins any more"—is true at Speech Time, the second utterance "*l'an vendut*" explaining the first one "*l'ostal, l'an pas mai, los cosins*".

We will analyse the contrast between SP and CP as a difference in the type of eventuality described, using an event/state distinction and their discourse functions (Kamp and Rohrer 1983, Kamp and Reyle 1993): the SP introduces an event, while the CP introduces both an event and its resulting state. Following Reichenbach (1947) and Vet (2001, 2010), we will consider that the SP describes the event as located in the past, i.e. before Speech Time, while the CP describes the resulting state as located at Speech Time.

2.2 *SP Narrative Tense*

With its aoristic value, the SP is presented in grammars and in Sibille (2015) as being the tense used for narratives, whereas this value is never mentioned for the CP.

Occitan SP is used to describe sequences of events in a narrative progress, as noted by Kamp and Rohrer (1983), and many others, for French (see for example Borillo et al. 2004).

Another interesting feature of SP in Occitan, first observed by Sauzet and Ubaud (1995, pp. 26–27), should be mentioned. It consists in the capacity to switch from a context anchored in the present to a narrative context, which they illustrate with the following example:

(5) Vos dirai que soi nascut a Solòrgues [...] exceptat un plen vaso ont ma maire teniá de basalic, mas gents, quand ieu nasquèri, possedissián pas una palada de tèrra en pròpri (J.B.C. Fabre, *Istòria de Joan l'An Pres*, quoted by Sauzet & Ubaud 1995, p. 27) (I'll tell you that I have been born at Solòrgues [...] apart from one whole pot that my mother kept basil in, my family, when I was born, didn't have a single spadeful of land of their own)

In their work, the authors follow the textual approaches to tenses proposed by Benveniste (1966) and Weinrich (1973)[3] to contrast two systems of tenses: the comment (or discourse) system vs. the narrative system. Present, future and CP belong to the comment system while SP and *imperfach* belong to the narrative system, the Occitan SP being described as being able to shift from the comment system to the narrative system as shown in (5).

2.3 *Anteriority*

Sibille (2015) and a few Occitan grammars mention that, when used in a temporal subordinate clause as in (6), the CP expresses the anteriority of the event described in the subordinate clause to the event described in the main clause:

(6) Quand a manjat, fa prangièra. (When he has eaten, he takes a nap)

2.4 *Event Localisation in Past Days vs. in the Current Day*

Sibille (2015) and some Occitan grammars note the use of the CP to report an event that has taken place in the current day, i.e. the same day than the day including the Speech Time (7), known as hodiernal use (Comrie 1985), whereas the SP is used to report events anterior to the current day (8):

(7) L'ai vist de matin / L'ai vist uèi (I have seen him/her this morning / I have seen him/her today)

(8) Lo vegèri ièr (I saw him yesterday)

2.5 *Event Localisation in a Time Interval Ending before Speech Time vs. Not Ended at Speech Time*

Sibille (2015) extends this rule to account for contrastive uses of CP and SP in a clause modified by a temporal locating adverbial (TLA), depending on whether the time interval described has ended before Speech Time or not: CP refers to an event located in an interval that has not ended at Speech Time, while SP refers to an event located in an interval that has ended at Speech Time. These properties are illustrated by examples (9), (10) and (11) describing contrasts between two periods: the first one includes Speech Time and is often described by a deictic adverbial (simple or composed of the proximal demonstrative determiner *aqueste* (*this*) followed by a Time Noun), while the second

3 These approaches were designed for French but they cannot really account for the different uses of the French Passé Composé (PC), belonging to both systems. We will also see here that they are not sufficient for Occitan either.

is over at Speech Time and is often described by a deictic past adverbial or an anaphoric adverbial (composed of the distal demonstrative determiner *aquel* (*that*) followed by a Time Noun); the first clause tense is a CP, while the second is an SP.

(9) Aqueste mes a plan plegut mas lo mes passat pleguèt pas tant. (Sibille 2015) (This month it has rained a lot but last month it did not rain that much)

(10) Augan n'avèm pas ajudas plassas noses, antan n'agèrem mai. (Sibille 2015) (This year we have not had many nuts, last year we had more)

(11) La setmana de Pascas i agèt plan monde al vilatge. Aquela setmana vendèrem tota la recòlta al mercat. Mas aquesta setmana avèm pas res vendut. (Over Easter weak there were many people in the village. That week we sold all the harvest in the market. But this week we haven't sold anything)

2.6 *Other Values of SP*

Two other values of SP are described by Sauzet (2005, unpublished) and Sibille (2015). The first one is an inchoative value, where the SP describes the first stage of the event only:

(12) Tre que la prima arribèt, los arbres verdegèron. (Sauzet 2005) (As soon as spring came, the trees turned green)

The other value of the SP, described by Sauzet as an "unveiling value", in that SP is used where an *imperfach* (imperfect) could also have been used to reveal the background of the first event, is illustrated in (13)–(14) (where the SP "*agèt*" could be replaced by the imperfect "*aviá*").

(13) Quand lo trobèron **agèt** pas de camisa. (Asaís, *Lo coissin de l'òme endéutat*, 1875, cited by Sauzet 2005) (when they found him, he had no shirt)

(14) [Los cabiròls] Li avián manjat lo gran de las anhèlas e quand volguèt donar lo gran a las anhèlas, n'i **agèt** plus. (oral data of contemporaneous speaker collected by Sibille 2015) ([The roe deer] They had eaten the lambs' fodder, and when he wanted to (= went to) give the fodder to the lambs, there was none left)

TABLE 7.1 Semantic values of Simple Past and Compound Past

	Simple Past	**Compound Past**
[1]	past event SP locates the event in the past of Speech Time (ST)	Present resulting state CP locates the resulting state of the event at Speech Time
[2]	Narrative tense SP conveys narrative progress SP can switch to a narrative context	
[3]		Anteriority CP expresses the anteriority of the event described in the subordinate clause to the event described in the main clause
[4]	Before the current day SP locates the event before the current day	Within the current day CP locates the event in the current day
[5]	Within a time interval ending before ST In presence of a TLA, SP locates the event in a time interval ending before Speech Time	Within a time interval not ended at ST In presence of a TLA, CP locates the event in a time interval not ended at Speech Time
[6]	Imperfective value and inchoative value	

For these values, SP contrasts with *imperfach* and not with CP, so we will leave them aside here. However, we must mention that we have here an imperfective value of SP, and that, crosslinguistically, SP/preterit tenses can convey both perfective and imperfective values. Caudal and Vetters (2007) associate perfective, imperfective and resultative values to Preterit in current English and to SP in old French. In descriptions of current Occitan, the prevalent value of SP is the perfective/aoristic one. While the imperfective value displayed in (13) and (14) exists, it is very seldom used.

2.7 *Values of CP and SP*

Table 7.1 sums up the values described in this section.

3 Corpus Data Analysis

In this section, we analyse examples from a corpus of written data along the set of values presented in section 2, in order to draw a picture of how SP and CP are used in texts, and to refine the set of values if appropriate. The data are

taken from the Occitan text Base BaTelÒc,[4] which comprises about one hundred texts (3.37 million words) of all Occitan dialects, written by fifty different authors, ranging from the 19th to the 21st centuries, and belonging to different genres (prose, drama, poetry, the press and technical texts) (Bras and Vergez-Couret 2016).

The corpus selected for this study is restricted to Lengadocian texts written in classical spelling by authors born before the Second World War (10 authors born between 1860 and 1939). It includes 28 texts, totalling nearly 1 million words, and is mostly constituted of narrative texts. In this corpus, SP uses are prevalent (depending on the verb, there are between three and six times more SP forms than CP forms), while CP uses are mostly found in dialogues.

3.1 *Past Event vs. Present Resulting State*

Unsurprisingly, SP uses, due to the aorist value, are found in tales to describe fictive past events (15), and in other narratives to describe real past events (16), often occurring after a background description using the *imperfach* tense.

(15) Un còp i aviá, dins l'ancian temps, un papà e una mamà. Avián un polit enfanton al brèç qu'apelavan lo Riconèl. Mas la mamà **moriguèt**. (Bodon, *L'aucèl gris*) (Once upon a time, in old times, there was a dad and a mum. They had a pretty child in the cradle who they called Riconèl. But the mum died.)

(16) La Revolucion s'acabava, la Republica se morissiá, Bonaparta se batiá en Egipte. Es alara que **se bastiguèt** lo meu ostal. (Bodon, *Lo meu ostal*) (The Revolution was ending, the Republic was dying, Bonaparte was fighting in Egypt. It was at that moment that my house was built)

CP, as already mentioned, due to its perfect value, is mainly found in dialogues, in present contexts, as in (17), where the "gathering chestnut event" has a resulting state that "there are chestnuts in the attic":

(17) —As ben plan rason, pardí! Anem far vistalhas. Passa davant, monta al plancat, veiràs las castanhas **qu'ai amassadas**. (…) Totas son pas aquí, ça que la. (E. Molin, *E la barta floriguèt*). (You're right! Let's go through the house. Go ahead, go up to the attic, you will see the chestnuts that I have gathered. (…) Not all of them are here, though.)

4 redac.univ-tlse2.fr/bateloc.

This result is observable, as confirmed by the perception verb *veire* (see), and is relevant at Speech Time, just as a present state, such as the one described by the last sentence "not all of them **are** there" can be. Interestingly, the complete right context of (17) in (18) gives us the opportunity to contrast CP and SP in the same context:

(18) —As ben plan rason, pardí! Passa davant, monta al plancat, veiràs las castanhas **qu'ai amassadas**. Lo Tiston de Melhat **me'n portèt** quatre sacadas, ièr ser, que n'i aurai plan per engraissar lo pòrc. Totas son pas aquí, ça que la. (E. Molin, *E la barta floriguèt*). (You're right! Let's go through the house. Go ahead, go up to the attic, you will see the chestnuts that I have gathered. Tiston de Melhat brought me four bags of chestnuts yesterday night, so I will have what I need to fatten the pig. Not all of them are here, though.)

The SP clause here is followed by a temporal location adverbial "*ièr ser*" referring to a past interval, clearly requiring a past location of the event (deleting "*ièr ser*" would allow a CP use). So we may conclude that SP can even be used in dialogues to report a past event as in (18), even though the dialogues are anchored in Speech Time.

3.2 *Narrative Tense*

3.2.1 SP Conveys Narrative Progress

Sequences of SPs conveying sequences of temporally ordered events, as in (19), are very prevalent in narrative texts.

(19) Trempa coma una sopa, aquela femna, furiosa, **sacregèt** coma un carretièr, **romeguèt**, **insolentèt** lo colpable e, tot en levant lo punh devèrs el, li **cridèt**: (…) (Lagarda, *Tres palometas blancas*) (Soaked through, that woman, furious, swore like a trooper, grumbled, yelled at the culprit and, raising her fist at him, shouted to him: (…))

Nevertheless, the temporal relation between two events reported by two SP clauses is not always a posteriority relation. Let us examine for example the extended version of (16) in (20) and compare the temporal relation between the events reported by the three SP clauses:

(20) Un còp i aviá, dins l'ancian temps, un papà e una mamà. Avián un polit enfanton al brèç qu'apelavan lo Riconèl. Mas la mamà **moriguèt**. Lo papà podiá pas demorar tot sol per trabalhar la bòria. Ça que la sabiá pas far la sopa ni la bugada. Alara **se tornèt maridar**.

La femna que **prenguèt** l'apelavan la Caïnata. (Bodon, *L'aucèl gris*) (Once upon a time, in old times, there was a dad and a mum. They had a pretty child in the cradle who they called Riconèl. But the mum died. The dad couldn't carry on by himself with the farm work. Still, he couldn't do the cooking or the washing. So he remarried. The women he took to wife was called la Caïnata.)

The "wedding event" is posterior to the "death event", but the "take to wife event", which could also have been reported with an SP main clause (*Prenguèt una femna que l'apelavan la Caïnata* / *He took to wife a woman called la Caïnata*) is not posterior to the wedding. It is rather included in it. Such phenomena have already been observed for French by Kamp and Rohrer (1983) and have given rise to many studies on the different temporal relations that can be supported by SP and CP clause pairs. One of the most successful approaches is that of Asher and Lascarides (2003)[5] which accounts for temporal relations as derived from discourse relations that are inferred from various knowledge sources amongst which tenses but also lexical semantics and world knowledge. In this case, we would infer an Elaboration relation rather than Narration relations as in (19). So, we may conclude here that SP does not always convey narrative progress, even in narrative texts.

3.2.2 SP Can Switch to a Narrative Context

Let us now turn to another kind of context for SP use, that of example (21), where we will examine the sequence of SPs (bold), following a CP (bold):

(21) Joan gaita sens o agachar aquel campèstre tot de vinhas. Son uèlh se pèrd dins lo prigond de l'aire. Es un jovent plan destricat, la cara pichonèla mas fina, de pòtas estrechas, lo nas drech coma son agach, pas res fin finala que se pòsca remarcar d'un biais particular. Es enginhat coma los de son temps, lo pel cort, d'un negre un pauc grisenc. La raia es sul costat esquèr. Curiós aquel biais de se cofar al revèrs de sos companhs. Sap consí **li es arribat se vegèt** dins un miralh per se penchenar e aquí **metèt** la raia a drecha sens se pensar qu'el èra virat al revèrs de son image. Pus tard **se n'avisèt** ben mas la tissa èra presa e **volguèt** pas i cambiar res.
Sens se'n mainar, pòrta la man a son nos de cravata. (C. Laus, *Joan Delcaire*)

5 See also (Bras & Asher 1994), (Borillo et al. 2004) for an account of French tenses in the same framework.

(Joan stares at this vineyard landscape without seeing it. His eye gets lost in the depth of the air. He is a nimble young man, his face is small but neat, with narrow lips, a nose as straight as his gaze, all in all nothing that stands out in any particular way. He is dressed like the other young people of his age, with short hair of a slightly greyish black. His parting is on the left. Odd, this way of doing his hair the other way round to his peers. He knows how it has come about, he looked at himself in a mirror to comb his hair and then parted it on the right side without realising that he was the other way round to his image. Later on he noticed it but the habit was ingrained and he didn't want to change it. Absent-mindedly, his hand strays to the knot of his tie.)

This sequence of SPS actually arises in a context of narrative clauses in the present tense (*Joan **gaita** …*) followed by the character description (***Es** un jovent …*), also in the present tense, followed by the description of a resulting state (*Sap consí **li es arribat***) anchored to the present. The first clause of the SP sequence (***se vegèt** dins un miralh …*) switches from a present context to a past narrative one, as if it were introducing a narrative within the narrative, as a kind of flashback. The last clause of the example (*… **pòrta** la man …*) opens a new paragraph, and goes back to the main narrative.

(21) seems to be a very nice example of the "mise en récit" signaled by Sauzet and Ubaud (1995, p. 27), and a much clearer one than the one they provide. Another example from our corpus is discussed below (see Section 3.5.2).

3.2.3 CP and Narrative Progress

We found no examples of narrative progress clearly conveyed by a sequence of CP clauses in our corpus.

3.3 *Anteriority with Respect to the Present*

We found several examples similar to (6) in our corpus, where CP expresses the anteriority of the event described in the subordinate clause to the event described in the present tensed main clause (22), whereas this anteriority value is impossible for SP (23) which would be used instead in a sequence of events (24), as mentioned in 3.2.1:

(22) Se passejan, van dançar al cafeton. Quand lo vilatge **es vengut** gaireben desèrt, los cobles **sortisson.** Demòran pas sonque los joves per las carrièras. (C. Laus, *Joan Delcaire*) (They have a walk, they go to dance at the pub. When the village has become almost empty, the couples go out.)

(23) Se passejan, van dançar al cafeton. #Quand lo vilatge **venguèt** gaireben desèrt, los cobles **sortisson.** Demòran pas sonque los joves per las carrièras. (#When the village became almost empty, the couples go out.)

(24) Quand lo vilatge **venguèt** gaireben desèrt, los cobles **sortiguèron** (When the village became almost empty, the couples went out.)

3.4 *Event Localisation in Past Days vs. in the Current Day*

We saw in (18) that the use of a past reference adverbial such as *yesterday* was enough to require the use of SP. The same goes for (25) with *yesterday*, and for (26) with *last week*:

(25) —Qu'es aquel lum, ailà luènh? demandèt. Mas **te diguèri ièr** qu'es lo castèl del Diable: un castèl plen de bruèissas, sabes plan! (Lagarda, *Tres castèls del diable*) (—What's that light over there? he asked.—But I told you yesterday that it's the Devil's castle: a castle full of witches, as well you know!)

(26) —Alara, demandèt, **la setmana passada**, **se debanèt** plan aquela passejada a La Vila? Èretz un tropèl? (Delèris, *Los crocants de Roergue*) (So, he asked, last week, did it go well, that walk around La Vila? Were there many of you?)

Nevertheless, out of 42 occurrences of *ièr* (yesterday) in our 1 million word corpus of authors born before 1940, we found 2 occurrences in CP sentences (less than 5%). A quick look at the Lengadocian texts written in classical spelling by authors born after 1940 shows that the proportion of *ièr* occurring in CP sentences increases to 12%. For now, we hypothesise that they are due to French-Occitan language contact, but the question would need further investigation on a contrasted diachronic corpus, that we leave for further research.

The hodiernal use of CP is illustrated by the following examples where the localisation of the event in the current day is direct (27–28) or indirect (29):

(27) Lo questionavan: « E **qu'a dit**, **uèi**, lo regent? » (Esquieu, *Dels camins bartassièrs*) (They were questioning him: "and what has he said, today, the teacher?")

(28) —Òc, tè! **Tot uèi** ne **soi estada** malauta. (Molin, *E la barta floriguèt*) (Yes, look! I have been sick all day)

(29) **Aqueste matin**, en furgant al granièr de l'ostal de familha, **ai trobada** la grasala de la mamè Paulina. (Rapin, *A costat del vent*) (This morning, searching through the attic of the family house, I have found grandma Pauline's bowl)

3.5 *Event Localisation in a Time Interval Ending before Speech Time vs. Not Ended at Speech Time*

3.5.1 SP Locates the Event in a Time Interval Ending before Speech Time
We already illustrated this property of SP with examples (25) and (26), including reference to past days (*yesterday*, *last week*), which can be considered as time intervals ending before Speech Time. In (30), we have an SP in a present context, its use being required by the past time adverbial *last year*, which also describes a time interval ending before Speech Time.

(30) Dempuèi que lo camin de fèr passa, la cauç la crompam a carradas que retiram a la gara sens cap de maganha. **L'an passat encaucinèrem** tota la bòria e vesètz se la nòstra tèrra volonta pas de blat! (J. Bodon, *Lo pan de froment*) (Now the railway comes here, we buy lime by the cartload that we pick up from the station with no trouble. Last year, we spread lime over the whole farm and look how our soil likes wheat!)

3.5.2 CP Locates the Event in a Time Interval Not Ended at Speech Time
Example (31) from our written corpus resembles the elicited example (10) in section 2.5 and illustrates the use of CP with an adverbial describing a time interval that has not ended at Speech Time "*augan*" (*this year*).

(31) —Paure, disiá ela al Francés, te caldrà beure d'aiga. **Avèm pas fach** de citra **augan**, e de vin ne parlem pas! A sièis o sèt sòus la litra que lo vendon, ne crompam pas jamai. (E. Molin, *E la barta floriguèt*) (Poor you, she was saying to Francés, you will have to drink water. We haven't made cider this year, and let's not talk about wine! They're selling it for six or seven sous a litre, we never buy any.)

Let us examine another example including a deictic adverbial noun phrase composed of a proximal determiner *aqueste* and a time noun *prima*, as in (9):

(32) — [...]. De segur qu'as vist quicòm que t'agrada pas.
—**Aquesta prima**, un mainat nos **es mòrt** de fam. Quauqu'un nos aviá panada la cabra. Me fa dòl de ne veire maites repotegar, jogar, cridar e rire coma de padenas. (Delèris, *Los crocants de Roergue*) (— [...]. You've

clearly seen something you don't like.—This spring, one of our children has starved to death. Somebody had stolen our goat. It grieves me to see other children moaning, playing, yelling and laughing like crazy.)

At first sight, we interpret *"aquesta prima"* (*this spring*) as describing a time interval that has not ended at Speech Time. However, when going back carefully in the left context, we discover that the conversation takes place after the end of the spring period. So, as the tense used is CP and not SP, this contradicts the condition described in row [5] of Table 7.1 since the spring interval has ended at Speech Time. A closer examination leads to the hypothesis that the time interval at stake here is the current year, including the spring interval, rather than the spring interval itself, which is part of it, as represented in Table 7.2.

TABLE 7.2 Time interval relationship for (32)

"aquest'an" / "augan" (this year)			
"aquesta prima" (this spring)	"aqueste estiu" (this summer)	"aquesta davalada" (this autumn)	"aqueste ivèrn" (this winter)

Let us now analyse a similar example to further the investigation:

(33) **Lo diluns al ser**, a son arribada a la Castanhal, Raols aviá trobada una Auròra enfuscada.
—Lo vicari **es vengut aquesta prangièra**, diguèt. Cresiá que seriás tornat de Najac per anar a La Vila amb Bòrses e Baròts. M'a fisat qu'el partirà deman o subrendeman. (Delèris, *Los crocants de Roergue*) (On Monday night, at his arrival at La Castanhal, Raols had found Auròra excited.—The vicar has come round this afternoon, she said. He thought you would be back from Najac to go to La Vila with Bòrses and Baròts. He has told me that he will leave tomorrow or the day after.)

In (33), the conversation including the CP clause is located by the frame adverbial "*lo diluns al ser*" (*on Monday night*) of the first utterance. So, the time interval referred to by the temporal adverbial modifying the CP clause "*aquesta prangièra*" has surely come to an end at the time the speech act is made. Thus, as for (31), the time interval at stake here is not the interval explicitly referred to by the temporal adverbial in the CP clause, "*aquesta prangièra*", but rather, the current day.

TABLE 7.3 Time interval relationship and Time Noun Type relationship for (33)

Adverbial "uèi" (today) / Time Noun type = day; continuous TN: holonym		
"aqueste matin" (this morning) Time Noun type = part-of-day / morning Discontinuous TN: meronym	"aquesta prangièra" (this afternoon) Time Noun type = part-of-day / afternoon Discontinuous TN: meronym	"aqueste ser" (this evening) Time Noun type = part-of-day / evening Discontinuous TN: meronym

In both cases, the temporal location adverbial modifying the CP clause (*"aquesta prima", "aquesta prangièra"*) refers to a time interval which occurs discontinuously in time (a spring interval follows a winter interval, an afternoon follows a morning), whereas the interval associated to their super-type (year, day) occurs continuously in time (a year follows another year, a day follows another day) (Bras & Molinès 1993, Bras 2005). This relationship from discontinuous meronyms to their continuous holonyms seems to be the basis of the temporal reasoning enabling a CP to occur even if the interval explicitly referred to in the clause has come to an end. We represent this for example (33) in Table 7.3.

To account for these situations, we have to make the conditions for CP use (listed in row [5] of Table 7.1) more precise:

– When the clause includes a deictic temporal location adverbial (TLA), the time interval T implied in the interpretation of CP is not necessarily the one referred to by the TLA modifying the clause:
– if this TLA refers to a continuously occurring interval type (*today, this month, this year*, etc.), T is the interval referred to by the TLA;
– if this TLA refers to a discontinuously occurring interval type (*this spring, this morning, this evening*), T is an interval implicitly referred to by the continuous occurring holonym of the explicit discontinuous occurring meronym time noun.
– When there is no TLA modifying the CP clause, as in (2) or (4), the time interval T is the Speech Time itself.

Now, with constraint [5] reformulated this way, the hodiernal constraint examined in sections 2.4 and 3.4 (row [4] in Table 7.1), according to which a CP clause locates its event in the current day, is redundant with [5], at least for CP, because the current day is a particular case of an interval that has not ended at Speech Time.

Let us examine a last example, which comes from BaTelÒc, but lies outside the scope of our corpus because the author was born after 1940. Nevertheless, it is very interesting to explain the phenomena at stake. (34) is part of a dialogue with someone losing his memory who is asked why he knocked at a woman's door:

(34) —Ac sabi pas. Çò que sabi es qu'**aqueste matin soi partit** d'aquel membre a sèt oras per me n'anar al trabalh, **e** qu'**aqueste ser**, quand **volguèri** durbir la pòrta amb la clau qu'es aquí sul burèu, **poguèri** pas. Alavetz **truquèri** e la femna que me **duerbèt** èra pas la miá … (I don't know. What I know is that this morning I have left this room at 7 o'clock to go to work, and that tonight, when I wanted to (= went to) open the door with my key that is here on the desk, I couldn't. So I knocked and the woman who opened to me was not my wife …). (B. Bergé, *L'estilò negre*)

It is clear from the use of the TLA "*aqueste ser*" (tonight) that the Speech Time for the whole utterance is located at the end of the current day. We have a present clause "*sabi*" (I know) embedding a CP clause "*soi partit …*" and then a SP clause "*poguèri pas*". The CP clause includes a TLA, "*aqueste matin*", which is over at Speech Time. The time noun "*matin*" is of the discontinuous occurring type, and, just as in example (33), the reference interval has to be the interval denoted by its holonym, i.e. the current day. So the use of the CP is in line with our analysis above.

It is not the same for the use of the SP in the following, where the events are located in a time period that is not yet completed, "*aqueste ser*", and included in the current day. So what can justify the use of the SP here? A closer examination of the whole SP sequence *"e qu'**aqueste ser**, quand **volguèri** durbir la pòrta amb la clau qu'es aquí sul burèu**, poguèri** pas. Alavetz **truquèri** e la femna que me **duerbèt** èra pas la miá …"*. reveals the presence of a temporal subordinate clause *"quand **volguèri** durbir la pòrta amb la clau qu'es aquí sul burèu"*, that triggers the same switch from a present context to a narrative context as the ones we observed in examples (5) and (21). This switch proves to be possible despite the explicit link with the present situation in "*la clau qu'es aquí sul burèu*" (the key which is here on the desk). The "switch to narrative context" SP thus opens the narrative sequence formed by the three SP clauses *"**poguèri** pas. Alavetz **truquèri** e la femna que me **duerbèt** èra pas la miá …"*.

These data therefore show that the SP can be used to report events located in the current day, provided that a switch to a narrative context be triggered. As such, they form a counterexample to the SP part of the hodiernal constraint in [4], according to which an SP clause cannot report an event located in the

current day. Moreover, it should be pointed out that thanks to the temporal subordinate clause, the event in the main clause is located in a temporal interval that has ended at speech time. Thus there is no contradiction with the SP part of the time interval constraint in [5] (Table 7.1).

In conclusion, we suggest deleting the hodiernal condition of row [4] in Table 7.1, considering that its CP part is covered by the rule in row [5].

3.6 *CP Expressing a Still Current Habit*

In the corpus, we found a use of CP that is not yet listed in CP descriptions: it is illustrated in (35) where the author describes his habits "comptar sus la Providença" and "far sabròt" using CP and the adverb "*totjorn*" (always), all of it describing a state of affairs still true at Speech Time. It is impossible to use SP to express that (36).

(35) **Ai totjorn comptat** sus la Providença per me tirar de la petega quand li me soi trobat (…) E que me venètz cantar de beure d'aiga e de crebar de fam per alongar la vida! Laissatz-me far sabròt coma **ai totjorn fach**, e manjar de pan brun tant que lo Bon Diu voldrà! (E. Molin, *E la barta floriguèt*) (I have always relied on Providence to get out of trouble when I have been in it (…) And what's all this nonsense of yours about drinking water and starving so as to live longer! Let me pour wine into my soup as I have always done, and eat brown bread as long as the Good Lord wishes!)

(36) # **Comptèri totjorn** sus la Providença per me tirar de la petega quand li me soi trobat, e la Providença (…) E que me venètz cantar de beure d'aiga e de crebar de fam per alongar la vida! Laissatz-me far sabròt coma # **faguèri totjorn**, e manjar de pan brun tant que lo Bon Diu voldrà! (# I always relied on Providence to get out of trouble when I have been in it (…) And what's all this nonsense of yours about drinking water and starving so as to live longer! Let me pour wine into my soup as # I always did, and eat brown bread as long as the Good Lord wishes!)

3.7 *Revised Values of CP and SP*

Our corpus analysis results in Table 7.4. Note that [1].SP, [2].SP and [5].SP all pertain to the perfective value of SP, distinct from the values in [6].SP. As for CP, [1].CP and [5].CP pertain to the resultative value of CP, which is distinct from the values expressed in [3].CP and [4].CP.

TABLE 7.4 Revised semantic values of Simple Past and Compound Past

	Simple Past	**Compound Past**
[1]	SP locates the **event** in the past of Speech Time	CP locates the **resulting state** of the event at Speech Time
[2]	SP conveys **narrative progress** (Narration Relation) SP can **switch to a narrative context** SP can support an **Elaboration Relation**	∅
[3]	∅	CP expresses the **anteriority** of the event described in the subordinate clause to the event described in the main clause in the present tense
[4]	∅	CP expresses a **still current habit**
[5]	SP locates the event **in a time interval** T **ending before Speech Time** T can be referred to by a TLA modifying the clause or be implicit.	CP locates the event **in a time interval not ended at Speech Time** When the clause includes a temporal location adverbial (TLA), the time interval T implied in the interpretation of CP is not necessarily the one referred to by the TLA modifying the clause: – if TLA refers to a continuously occurring interval, T is the interval referred to by the TLA; – if TLA refers to a discontinuously occurring interval, T is an interval implicitly referred to by the continuous occurring holonym of the explicit discontinuous occurring meronym time noun. When there is no TLA modifying the CP clause, the time interval T is the Speech Time itself.
[6]	**Imperfective** value and **inchoative** value	

3.8 *Competing Constraints*

The analyses of the data in the preceding sections lead us to conclude that the use of CP together with a TLA referring to an interval located in the past of the Speech Time is impossible, unless this interval has a discontinuously occurring type and is included in another interval of continuously occurring type corresponding to its direct holonym. This is impossible even if the sentence is embedded in a present context where the resultative state is salient, as we saw with example (18) for which we may conclude that [5].SP (past location) overrides [1].CP (resultative state).

Nevertheless, we found a few examples, such as (37), where CP is used with a past TLA, most of them using the telic verb *"náisser"* (*to be born*):

(37) —Sabes, **soi nascut un polit jorn del mes de junh dins las annadas trenta.** A çò que me **diguèron**, ma maire s'èra entornada a çò de sos parents a Melhan per la circonstància. Es aquí que **nasquèri**, dins l'ostal del papeta. (C. Laus, *Joan Delcaire*) (You know, I have been born on a beautiful June day in the thirties. From what they told me, my mother had gone back to her parents' place at Melhan for the event. It's here that I was born, in my grandpa's house.)

Admittedly, "*náisser*" is a special verb when used in the first person because its resulting state "being alive"/"being born" is necessarily true at Speech Time for the speaker. This is also the case if the agent is a living person. By contrast, it is impossible to use CP with "*náisser*" if the agent is deceased. Note also, for example (37), that once the birth has been mentioned, the speaker switches to narrative using SP in "*diguèron*" and *"nasquèri"*. To conclude on (37), we note that we have the opposite statement as the one for (18) above: here [5].SP (past location) is overridden by [1].CP (resultative state). Nevertheless, the case illustrated by (18) is the most prevalent one.

4 Occitan SP and CP Related to Preterit and Perfect in Other Languages

4.1 *Romance Languages*

We now propose to compare briefly the Occitan SP/CP pair with other Romance language SP/CP pairs. We will first base the description of these pairs using the scale of development stages defined in (Harris 1982) and used in (Fleischman 1983). They both classify Occitan in stage III (see Table 7.5), which is confirmed by our data.

TABLE 7.5 Evolution stages of Harris (1982) according to Fleischman (1983)

Stage	Simplex form	Complex form	Languages
I	All past functions	Only present states resulting from past situations. Not used to describe the past actions themselves.	Sicilian, Calabrian
II	Most past situations (including recent past or a time period still in progress)	Beginnings of perfect function but limited to situations of a particular aspectual profile	Galician, Portuguese, Many varieties of American Spanish
III	Preterit	Archetypal Perfect value, i.e. past action with present relevance	Castilian Spanish, **some varieties of langue d'Oc** and langue d'Oïl, Catalan
IV	Restricted to formal registers, eventually eliminated	All past situations (functions of preterit and perfect)	Std. French, Northern Italian, Std. Romanian, Catalan

TABLE 7.6 Aoristic drift of the Romance CP according to Squartini and Bertinetto (1995)

[More perfectal] ⟶					**[Purely aoristic]**
Spanish	**Occitan** Catalan	Standard Italian	Standard French	Standard Romanian	Northern Italian and French vernaculars

Squartini and Bertinetto (1995) further investigated this scale with more extensive data on Romance Languages. They describe Occitan, according to Schlieben-Lange's work on Occitan and Catalan (1971, pp. 127–132), as being situated "at that point of stage III where SP and CP coexist with different functions (specifically, in terms of temporal distance), the CP being mostly used for situations closer to the Speech Time" (Squartini & Bertinetto, pp. 416–417). They then discuss the diachronic interpretation of the four stages of Harris and propose to view stages III and IV for CP as a continuum ranging from "more perfectal" to "purely aoristic" values (ibid. p. 422), as schematized in Table 7.6.

This schema is based on the observation of textual distributions of CP/SP in Spanish, Catalan, Italian, and French in various contexts (p. 422, Table 1), that we reproduce in Table 7.7 (discarding Italian varieties).

TABLE 7.7 Textual distribution of CP/SP in Romance according to Squartini and Bertinetto (1995)

	Spanish	**Catalan**	**French**
personal narratives	Preferably SP (irrespective of temporal distance)	Preferably SP, but CP prevails in hodiernal contexts	Preferably CP
informal conversation	SP preferred for non-hodiernal events	SP preferred for non-hodiernal events	Preferably CP
historical events with persistent results	Preferably SP	Preferably SP	Preferably CP
historical events	Preferably SP	Preferably SP	Preferably SP
tales	Preferably SP	Preferably SP	Preferably SP

According to our corpus data, the Occitan Lengadocian variety is close to this description of Catalan but our analyses show that hodiernal contexts in personal narratives do not exclude switches to narrative contexts, where SPs are used. They also show that the hodiernal/non hodiernal distinction for tense analysis in conversation is not always adequate and has to be refined as we suggest in section 3. It would be interesting to integrate these findings in order to refine the contexts at stake when comparing Romance languages.

4.2 *Germanic Languages*

De Swart (2007) and Vet (2010) compare French CP and SP with the corresponding tenses in English, German and Dutch, starting from the observation that use of the English Present Perfect (PP) is much more restricted than that of the French Passé Composé (PC). Vet (2010) defines several contexts of use for CP that result in situating the Dutch Voltooid Tegenwoordige Tijd (VTT) between English PP and French PC on an evolution scale, as shown in Table 7.8.

Our aim here is not to situate Occitan along an evolution scheme, but we found it useful to apply the linguistic tests suggested by Vet to Occitan. As such, they assess Occitan CP as compatible with present tense and inclusive deictics, like the English PP in Table 7.8.

Nevertheless, our analyses in section 3 result in adding an intermediate deictic context, between inclusive and exclusive ones, which is compatible with CP in Occitan and French (and presumably in Dutch), but not with PP in English:

(38) Joan es arribat a 7 oras del matin / Jean est arrivé à 7h du matin / *Joan has arrived at 7 in the morning

TABLE 7.8 Evolution stages of CP in French, according to Vet (2010)

Stage	Context	Value	Passé Composé (French)	Voltooid Tegenwoordige Tijd (Dutch)	Present Perfect (English)
1	Present tense	Resultative present	+	+	+
2	Inclusive deictics (*today*)	Anterior to the present	+	+	+
3	Exclusive deictics (*yesterday*)	Anterior to the present	+	+	
4	Past (*in 1907*)	Anterior to the present	+	+	
5	Narrative sequence	Preterit	+		

TABLE 7.9 Values of CP and SP in the Lengadocian variety of Occitan based on our corpus

Context	Value	Linguistic tests	CP	SP
Present tenses	Resultative present	*Vesi que ...* (*I see that ...*)	+	–
Inclusive deictic adverbial	Anterior to the present	+ *uèi* + *aqueste ser* (S ⊂ T)	+	–
Inclusive/exclusive deictic adverbial	Anterior to the present	+ *a 7 oras* (*aqueste matin*) (S > T)	+	–
Exclusive deictic adverbial	Anterior to the present	+ *ièr* + *la setmana passada*	–	+
Past adverbial	Anterior to the present	+ *l'an d'abans* + *en l'an 1907*	–	+
Narrative past	Preterit	*Quand* [e1], [e2]. [e1] (puèi) [e2]	–	+

In (38), there are two intervals at stake: the one described by the discontinuous type adverbial, T (7 o'clock), and the one described by its holonym continuous type interval, T′ (the current day). T defines an exclusive deictic context, while T′ defines an inclusive one. The use of CP is allowed by the reference to T′ which has not ended at Speech Time.

This context makes it possible to distinguish Occitan CP from English PP, and to add a fourth combination of features to Table 7.8. In Table 7.9, we give the linguistic tests associated to each context following Vet (2010) and our own findings.

Vet describes the evolution of French SP from the Latin perfect according to Pinkster (1987), explaining how it moved from all present and past contexts to only past contexts. In contrast, our analysis shows that the use of Occitan SP is less restricted as it allows exclusive deictic past adverbials, which is impossible in French:

(39) Joan arribèt ièr / *Jean arriva hier (Joan arrived yesterday (oc) / *Joan arrived yesterday (fr))

Caudal and Vetters (2007) associate the three preterital values of current SP in English—perfective, imperfective, resultative—to SP in old French. These values are conveyed respectively by SP, Imparfait and CP in current French. As we saw in section 2, current Occitan SP conveys the perfective value, and, much more rarely, the imperfective one.

5 Conclusions and Further Research

In this paper, we have given an account of the roles of Simple Past and Compound Past in context for the Lengadocian variety of Occitan, basing our analyses on a written corpus taken from the text base BaTelÒc. This enabled us to refine an initial description of tense values in an oral corpus collected in a field survey in Lot and organize it in contrastive pairs.

We have shown that SP and CP are in a complementary distribution. The main use of SP corresponds to a perfective/aoristic value, which locates an event in the past. It can convey narrative progress supporting a Narration relation, switch to a narrative context, and also support an Elaboration relation. The SP clause can be modified by temporal locating adverbials referring to a time interval ending before Speech Time. In some rare cases, SP can also convey an imperfective value. Besides its perfect resultative value with present relevance, CP can be used to report an event in a time interval not ended at Speech Time. This interval can be directly referred to by the temporal locating adverbial modifying the clause or be inferred as the "holonym interval" when the locating adverbial denotes a discontinuously occurring interval. In both cases, the interval includes Speech Time. This enables us to account for the use of CP without hodiernal constraint. The CP can also express anteriority in a subordinate clause and a still current habit.

Comparing these two tenses with preterits and perfects in Romance and Germanic languages led us to conclude that they have rather prototypical preterit and perfect functions. They occupy a middle position in Romance lan-

guages at stage III in Harris's scale (1982) and between Spanish and French in the "perfect to aorist move" of Squartini and Bertinetto (1995). According to Vet (2010), they are situated between English and Dutch, French CP being the least restricted of the four languages. We refined the typology of contexts and the linguistic tests proposed by Vet (2010) to account for the time interval to be considered in the case of deictic inclusive contexts, which is not necessarily the one denoted by the location adverbial in the sentence but the interval denoted by its holonym type, if the current time noun denotes a discontinuous occurring type. This new definition of contexts could be used to analyse the perfect in other languages.

The significant differences between French and Occitan underlined in these comparisons, in particular the number of different values conveyed by CP in French and the restricted use of SP in French, explain the difficulty of native French speakers learning Occitan when they have to choose between SP and CP: either they map the French forms to Occitan forms, or they use SP for all values of both French SP and CP. (Sauzet & Ubaud 1995, p. 26, our translation) give a practical rule to guide learners: "in a context of presents and futures, use CP, in a context of imperfects and conditionals use SP". Unfortunately, this textual heuristic approach focusing only on occurrences of tenses is not sufficient: firstly because the SP can switch from a context including present, future or CP tenses to a narrative context,[6] even in the current day; secondly because the use of a past locating adverbial, even in a context including present and CP tenses, is enough to require SP.[7] As we have seen, the locating adverbials modifying the clauses and the speech situation have to be taken into account. An alternate set of rules could be:

- when you want to tell a story, use SP
- when you want to talk about a past event or state, use SP, unless you want to express:
  - that the result of the past event is relevant now,
  - or that the past event or state is explicitly located in a time interval still going on at the moment of speech,
  - or that such an interval can be inferred from the locating adverbial modifying the clause;

  in those cases, use CP.

This work concerns one dialect of Occitan, the Lengadocian dialect, and a reasonably large corpus (50 K words for the oral part and nearly 1 million words for

6 See examples (21) and (34).

7 See examples (18) and (30).

the written part). Further research should extend to other dialects of Occitan (Gascon, Provençau, Vivaro-aupenc, Lemosin, Auvernhàs).

It would also be useful to study the evolution of CP and SP in diachrony (Bybee et al. 1994), as Caudal and Vetters (2007) did for French. In a first step, we aim to compare our written corpus of texts by authors born before 1939, all having Occitan as their native language, with a corpus of younger authors having both French and Occitan as native languages or Occitan as a second language. We hypothesize that there will be changes due to language contact.

Our project is also to extend the set of tenses studied. In Bras and Sibille (2020), we tackled the other Simple / Compound pair, namely the Simple Future / Periphrastic Future. Other tenses could also be studied and formalized in the same theoretical framework, possibly using Segmented Discourse Representation Theory to account for the semantics and pragmatics of tenses.

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CHAPTER 8

Double Modals in Scots: A Speaker's Choice Hypothesis

Cameron Morin

1 Introduction

Multiple Modals (MMs) occur in a variety of European languages, some of which license them quite straightforwardly (e.g. French *Il doit pouvoir venir*, 'He should be able to come'; Dutch *Dat zou moeten kunnen*, 'that would have to be possible'; German *Ich muss einschlafen können*, 'I must be able to fall asleep'). In English-speaking countries however, MMs (*I will can help you, he might could do that*) are significantly more unusual and often perceived as idiosyncratic, if not grammatically incorrect. Of all the phenomena categorised as MMs, Double Modals (DMs) are the most frequent: they have been studied most extensively in South Midland and Southern American dialects, but they also occur to a lesser extent in some varieties of Scots and Scottish English, as well as Scots-influenced linguistic pockets in Northern England and Ulster, despite an evident lack of collected data. DMs have not garnered much research over the decades, although they raise important theoretical questions, for instance in terms of their syntactic structure; in particular, the literature dealing with Scottish DMs is very sparse. This study offers, first and foremost, an updated picture of DMs in Modern Scots; its second objective is the presentation of a new hypothesis regarding their syntactic implications (a Speaker's Choice), based on a substantial amount of judgment data elicited in January 2018 from 60 respondents in Hawick, considered a typical location for DMs since Brown's account (1991). Generally, theoretical accounts of DMs lack authentic samples of the latter and may be completed by the contextual insight provided by a sociolinguistic, esp. folk-linguistic approach.

2 MMs and DMs in Non-standard Varieties of English, esp. Scots

2.1 *Regions and Dialects Where MMs Have Been Attested or Claimed to Occur*

As the term suggests, MMs are constructs involving the combination of at least two 'modal auxiliaries' despite it being unlicensed by the syntax of Standard English. Before becoming a dedicated topic in dialectology, MMs were recorded in rare anecdotes and side-comments of projects dealing with other issues. From these kinds of remarks (e.g. McMordie 1897), it is believed that DMs occur to some extent in Northern Ireland, probably its Ulster-Scots speaking regions, that is the counties of Antrim, Down and (London)Derry (Maguire 2012: 54). There is a clear lack of research on DMs in Northern Ireland, despite a couple of available accounts: in particular, Corrigan (2011) suggests that they may at least be part of the passive competence of speakers, based on acceptability judgments analysed by Hickey (2007).

Linguistic research specifically focusing on MMs was initiated in the 1970s and was almost exclusively carried out in the United States, especially the following South Midland and Southern American dialects: North and South Carolina (Butters 1973; Coleman 1975); West Virginia (Wolfram & Christian 1976); Texas (DiPaolo et al. 1979; Boertien 1979); Alabama (Feagin 1979); Tennessee (recently studied in Brandstetter 2003; Hasty 2012). Exceptions include Western states such as Utah (DiPaolo 1989) and African-American English in New York (Labov et al. 1968). The most prominent analyses of MMs are based on this literature. The most typical forms have been compiled by the Yale Grammatical Diversity Project (1a–g):

(1) a. I don't think I have any grants you **might could** apply for.
b. We **might can** go up there next Saturday.
c. I **may could** at Finger's.
d. You know, if you drank a half a drink, you **might oughta** go home and sleep it off.
e. This thing here I **might should** turn over to Ann.
f. How is it no one **might not would** notice that but Anne?
g. Well, once we get under way, it **shouldn't oughta** take us very long.

Given the linguistic proximity between the dialects of the Scottish Lowlands and the northernmost regions of England (Maguire 2012: 65–68), it is not so surprising that MMs should occur there as well. According to Beale (2004: 127–128), there is a rare and recessive set of DMs, more restricted than in Scots, in Northumberland and urban areas of Tyneside (2a–d):

(2) a. I can't play on a Friday. I work late. I **might could** get it changed, though.
b. The girls usually make me some (toasted sandwiches) but they **musn't could** have made any today.
c. He **wouldn't could've** worked, even if you had asked him. (Tyneside)
d. A good machine clipper **would could** do it in half a day. (Northumberland)

Specific research on the topic of MMs in Scotland was initiated by Keith Brown's analysis of DMs in Hawick (1990). Following this study, the region most worked on with respect to MMs was the Scottish Borders. Scarce occurrences of DMs have been observed in Glasgow (Cheshire et al. 1993: 84), but overall they seem to be absent from most varieties of Urban Scots in Glasgow, Edinburgh, Aberdeen and Dundee (the results of the recently published Scots Syntax Atlas (Smith et al. 2019) partly confirm this). The Northeastern regions of the Lowlands remain to be properly scanned for the presence of MMs; the same holds for Insular Scots e.g. in Orkney and Shetland, although it seems improbable that there be any frequent DM usage in these areas: there are no occurrences, for instance, in the corpus of Shetland Scots compiled by Jennifer Smith at the Angus McIntosh Centre for Historical Linguistics (AMC, Edinburgh). The most typical DMs in varieties of Scots are provided by Miller (2004: 53–54) (3a–g):

(3) a. He**'ll can** help us the morn.
b. They **might could** be working in the shop.
c. She **might can** get away early.
d. Wi his sair foot he **would never could** climb yon stairs.
e. You **might would** like to come with us.
f. You **might should** claim your expenses.
g. He **might could** do it.

The central region where Scottish DMs are attested and studied is the Borders. Their most complete mapping was done by Bour (2014) in Galashiels, Hawick, Kelso, Jedburgh, Selkirk, Peebles, Eyemouth, Duns and Berwick-Upon-Tweed. The linguistic micro-variation between these locations justify the label 'Border Scots' but also more specifically 'Hawick Scots', 'Galashiel Scots', etc. The Scots Syntax Atlas (2019) also shows that the Borders is where Scottish DMs are most accepted by speakers.

The following section provides an overview of diachronic studies in MMs and DMs in particular.

2.2 *Diachronic Perspectives on the Origins of DMs*

While Nagle underlines that 'the existence of DMs in both Scottish and American Southern vernacular suggests that they have a common origin' (1997: 1514), Bour argues that some 'exotic multiple modals' were imported from the United States to Scotland in the past few decades (2015: 35–36). The fact is that diachronic studies of DMs are even scarcer than synchronic ones (Novich 2016: 4).

One hypothesis is that DMs may have arisen during the transitions from Old English (OE) to Middle and Modern English, especially during the formation of the modal system as we know it today. Modals as morphosyntactic constituents were not present from the very first stages of the English language. Fischer (2004) shows that at the starting point of the 'modality cycle', some of the forms that we now recognise as modals occurred in fact as lexical verbs. Although the transition of the core modals from full-verb to auxiliary status was first posited as a relatively punctual 'radical re-analysis' (Lightfoot 1974, 1979), many subsequent works have argued that it was in fact a gradual series of categorial changes. Fennell (1993) agreeing with Kemenade (1989) adopts the view that this allowed for two types of modal constructions: one in which the modal verb (primarily deontic) behaved more like a full verb 'in that it could take a full range of complements and inflections', and one in which a restricted group of epistemic modals functioned as 'true auxiliary elements' (432). However, evidence for this as the origin of DMs seems sparse: Nagle (1995) points out that the only known DM combination in Middle English fitting the description is *shall* + OTHER MODAL TYPE, which does not occur in any recent record of Northern English or Scots dialects: (4a–e cited in Denison 2000: 115)

(4) a. c1180 *Orm*. 2958
... Þatt I **shall cunnenn** cwemenn Godd ...
that I shall have-ability(INF) please(INF) God
'... that I shall have the ability to please God'

b. c1450 *Pilgr.LM*(Cmb) 1.467
And whan ye wole go withoute me
and when you will go without me [*sc*. Reason]
'and when you wish to go without me
*ye **shul** wel **mown** avaunte yow*
you shall well be-able-to be-boastful
you shall certainly be able to be boastful'

c. c1463 *Paston* 66.16
... and wythowte I knowe þe serteynté
... and unless I know the truth

I **chal** not **conne** answere hym.
I shall not be-able-to answer him.

d. c1483(?a1480) Caxton, *Dialogues* 3.37
Who this booke **shall wylle** lerne …
he-who this book shall wish learn …
'He who wishes to master this book …'

e. 1532 Cranmer *Let.* in *Misc.Writ.*(Parker Soc.) II.233
I fear that the emperor will depart thence, before my letters **shall may** come unto your grace's hands.

An alternative approach suggests that DMs may have been borrowed from Scandinavian, as indeed 'probably because the modal verbs retain their status as full verbs, MM constructions are more common in Scandinavian than in English' (Fennell 1993: 433). This is backed up by the fact that 'the first attestations [of DM constructions of the *shall* + OTHER MODAL TYPE] are from late OE, making them contemporary with Viking contact' (Fennell 1993: 433). This seems consistent with the situation of the spread of OE in Britain by that time (approx. 1100): the Northern and Eastern varieties of 'Anglo-Scandinavian' were imported into the South of Scotland around the 12th century with the growth of the Norman-inspired burghs and the infeftment of the Norman nobles under the reign of David I, King of Scots. Anglo-Scandinavian, or 'Inglis', gradually spread in the Lowlands until it was the predominant written and spoken language there by the 1400s, and was termed 'Scots' by transference of the originally Celtic name to the dominant language. Known borrowings from Scandinavian into Inglis appear to be primarily phonological and lexical (Maguire 2012: 12–13); however, it remains to be examined whether DMs were also included in these borrowings, which would neatly overlap with contemporary occurrence patterns in Northern England and Lowland Scotland.

Both approaches rely on the assumption that DMs are of British origin. The existence of rare DM combinations in Northern Ireland can reasonably be believed to originate from Scots. In the second half of the 16th century, most of Ireland was firmly under the control of the English and Scottish crowns, which allowed the 'Plantation of Ulster': as part of the consolidation of British power in Ireland, tens of thousands of (mainly Protestant) English and Scottish 'planters' settled there. Owing to their geographical proximity, Scottish settlers were most common in the counties of Antrim and Down. They brought their native Scots dialects with them, which became a variety known as 'Ulster Scots'. It thus seems quite logical that DMs in these dialects should inherit from Lowland Scots (Corrigan 2011: 45).

Montgomery & Nagle (1994) defend the thesis of transatlantic inheritance of DMs from Scots to Southern American English, based on cultural evidence, namely the significant immigration of over 250,000 speakers of (Ulster) Scots from Ireland to North America sixty years before the American revolution, and other similar human migrations in subsequent years. Not much is known of how DMs came to be used in the South rather than the North; for now, an account combining cultural inheritance with independent evolution after being first introduced in the areas concerned is probably the most convincing.

2.3 *Triple, Quadruple and Mixed MMs in Scots*

MMs do not include DMs only and cover a range of other phenomena, which are worth mentioning although not directly tackled by this study. Triple modals (TM) are sequences of not two but three modals in one tensed clause. They are reported to be significantly rarer than DMs.

(5) The lad **may might can** muck the byre ['take dung out of the cow-house'] (Bour 2014: 81)
Rarer still and possibly extinct are Quadruple Modals (QM).

(6) He **may might must can** do it for you. (adapted from Bour 2015: 16)

According to Bour (2014), TMs and QMs follow a strict pattern according to which all and every modal preceding the last constituent in the sequence are *de facto* epistemic in meaning, and only the last constituent conveys (and has to convey) a root sense.

A broader and allegedly more frequent range of phenomena analysed by Bour is that of 'mixed multiple modals' (MMMs). This label focuses less on the number of modals in the sequence than on their nature. MMMs combines one or more central modal(s) with one or more peripheral or semi-modal(s). They are sometimes described as 'hybrid'. Below are presented in turn examples of a mixed DM, a mixed TM and a mixed QM:

(7) a. You **have to can** drive a car to get that job. (Bour 2014: 38)
b. One of our goals **might should ought to** take her home. (Bour 2014: 79)
c. He **might can used to could** run the marathon. (adapted from Bour 2015: 16 and Fennell 1993)

The phenomena described in this section are so recessive (esp. TM and QM) that they might be close to extinction (no examples collected in our study); however, once DMs are better covered, further research to examine them is to be encouraged.

3 A Folk-Linguistic Approach

The major methodological problem encountered when conducting research on MMs is the lack of data found in traditional repositories, despite the compilation of a maximally comprehensive set of present-day Scots and Scottish English corpora (AMC, Edinburgh). Of all the DMs attested in the literature prior to this study, none occurred except *will *can* a couple of times. And even then, upon closer examination, their discursive contexts did not give any reliable picture of what contemporary recognition and usage of DMs could be, as in each case the speaker was either a writer of fiction or a language activist deliberately recreating an idealised version of 'Broad Scots'.

To compensate this absence of data, we made use of a more qualitative method known as judgment elicitation, grounded in a 'folk linguistic' perspective (Hoenigswald 1966; Niedzielski & Preston 2000). The data produced provides advantages as long as appropriate precautions are taken, notably in terms of the subjectivity or vagueness of the speaker's judgment (it has been argued for example that intuition cannot completely replace empirical occurrence, Labov 1996).

For this study, a field survey was organised to distribute a questionnaire, following the guidelines of Johnstone (2000) and Calvet & Dumont (1999), essentially made up of closed and semi-closed questions. It was conceived to be completed in an average of 15 minutes, running through five main tasks, the target information of each being:

(0) Knowledge of the age, sex, activity and living area of the subject,
(1) Knowledge of how the subject represents the geography of their language variety
(2) Recognition and claimed usage of typical DM structures,
(3) Syntactic manipulation of DM structures into negatives and questions,
(4) Pragmatic and sociolinguistic information about the speaker's usage of DMs,
(5) Speaker's recognition and claimed usage of all DMs attested previously in the literature (esp. Bour 2014).

The following sections focus on all tasks except (4), which looks at different issues not immediately related to syntax. A crucial principle throughout this experiment was *authenticity*, in the sense that the respondent was told to produce data as spontaneously as possible. If DMs were perceived as odd or even unacceptable, it was explicitly indicated that they could write alternative structures or nothing at all if they so wished. They also had the possibility of adding comments e.g "I never use this", "I've heard this but it's bad grammar to me", etc. Every effort was deployed for the speaker to feel at ease and in satisfactory conditions of natural data production.

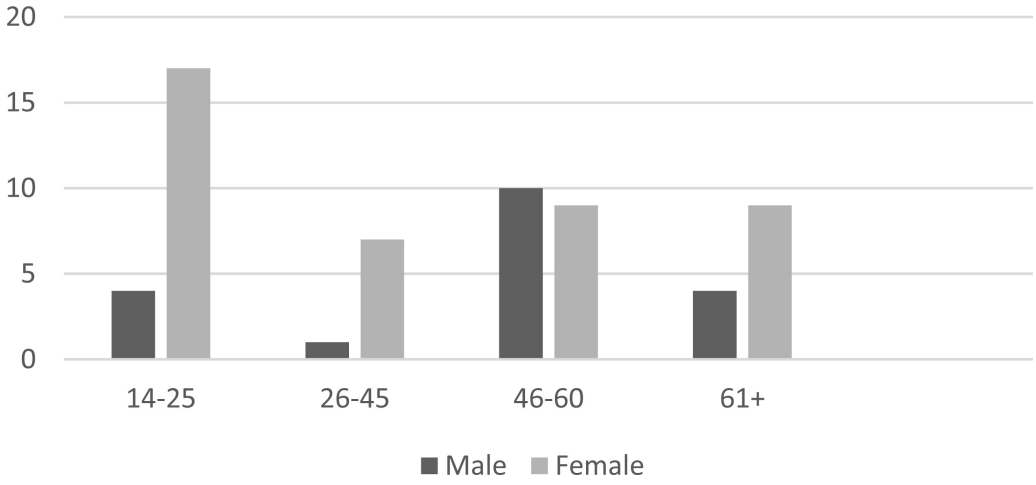

DIAGRAM 8.1 Distribution of respondents' sex per age group (y axis = number of individuals; x axis = age group in years)

The survey was carried out in January 2018 in Hawick, the second biggest town in the Borders after Galashiels, detected as a central location for MMS by Brown (1991) and Bour (2014). 60 respondents completed the questionnaire, four of which did so on an online version of the form.

4 Results

4.1 *Demographics, Professional Backgrounds and Dialectal Areas* (*Task 0*)

Diagram 8.1 cross-examines the respondents' age and gender. The age average of the participants was 42 years old. The significant number of 15–25 year-old respondents was achieved with the help of Hawick High School (HHS) which had a full class of nineteen 14–15 year-old pupils complete the questionnaire:[1] the majority of forms completed from other stacks were done so by 25+ year old respondents. A significant majority of respondents were women; as Bour notes (2014: 28), generally more women than men take part in such surveys and display more interest in their content, although it is difficult to uncover a straightforward set of causes for this contrast. The predominance of female respondents is especially apparent in the 14–25, 26–45 and 61+ age groups, whereas there is a very slight majority of male respondents in the 46–60 age group.

1 In keeping with our desire for authenticity (Section 3), it was repeatedly indicated that the questionnaire was neither a kind of grammar exam, nor a compulsory set of tasks.

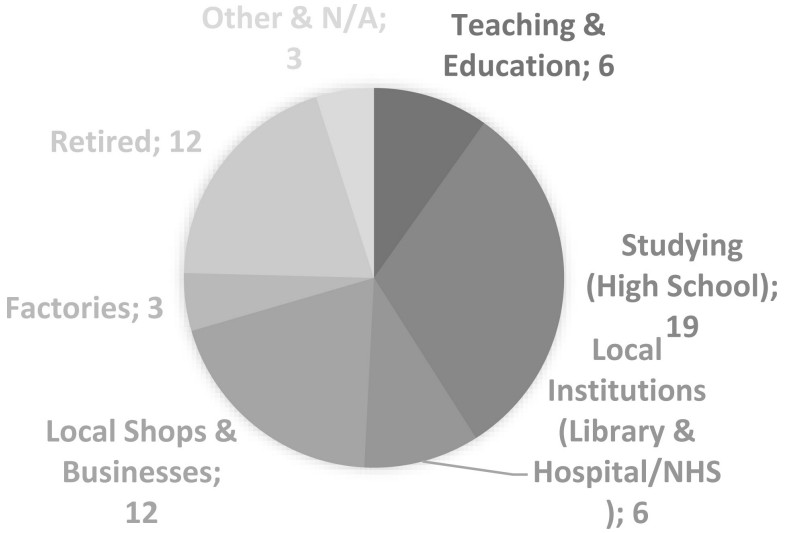

DIAGRAM 8.2 Distribution of respondents' types of activity (figure = number of individuals)

Diagram 8.2 showcases the type of employment or activity of the speakers.

The majority of students is explained by the large group of respondents surveyed at HHS. Amongst adults, the three main areas of activities were local shops and businesses, education and local institutions, and a significant number of respondents indicated that they were retired.

Diagram 8.3 shows the proportions for the place of activity, birthplace and perceived regional dialect of each speaker.

A vast majority of respondents indicated that their place of activity was Hawick. The data for the third item was collected via a different sub-task from the first two. The respondent had a blank map of Scotland in front of them and had to circle what they considered the area their language variety was spoken in. The smaller the circle was, the closer the dialect was assumed to be related to a specific town. A majority of respondents perceived their dialect as 'Borders Scots', but a significant number were more precise in indicating they spoke 'Hawick Scots'. This not only suggests that speakers acknowledge specific regional varieties of Scots, but also that some of those are specifically connected to small centres of a few thousand inhabitants at most.

4.2 *Recognition and Claimed Use of DM Structures (Tasks 1 & 5)*

Task 1 faced the respondent with a sample utterance excerpted from the literature containing a DM structure. Six utterances in total were presented:

(8) a. You'**ll can** enjoy your holidays now, I'm sure.
b. Wi his sair fit he **would never could** climb the stairs.

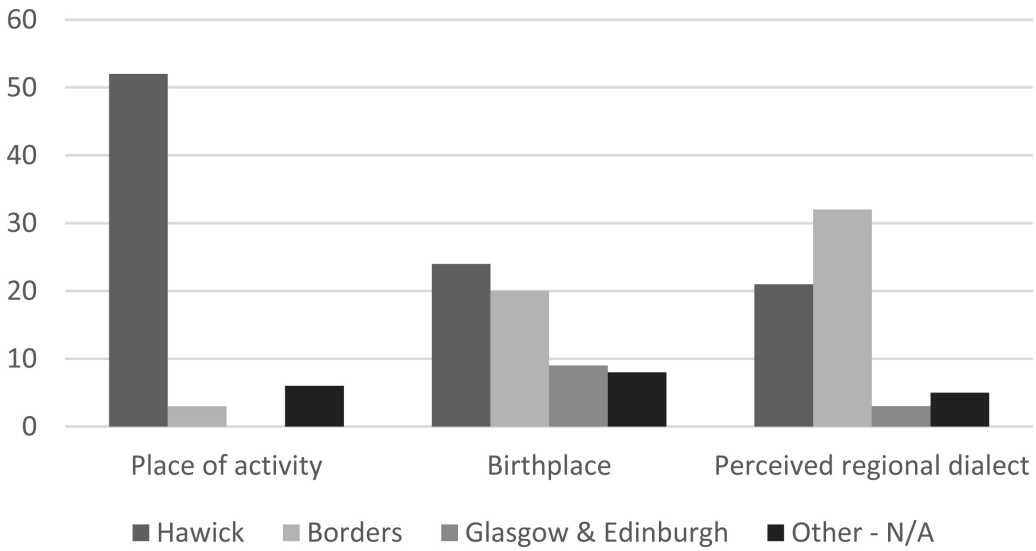

DIAGRAM 8.3 Distribution of respondents' regional origins and dialects (y axis = number of individuals)

c. You **may should** check this before making any decision.
d. He **might no could** do it, but he'll try.
e. He **mustn't could've** done that!
f. He **should can** go if he finishes early.

For each utterance, three sub-tasks were featured: a closed question as to whether the speaker recognised the form or not (in written or in oral form), then a semi-closed question concerning the frequency of usage ranging from 'Daily' to 'Often', 'Sometimes', 'Rarely' and 'Never'; and finally a more open question asking for the speaker's preferred alternative if they had never heard or used the structure in question.

Task 5 added to the substantial data collected in Task 1 by asking for the same type of information on a wider range of decontextualised forms, comprising all DM structures attested by the literature to occur in Scots.

Both tasks produced large amounts of data from which a tentative typology was inferred, with three categories according to the frequency of recognition and claimed usage:

(i) Often Used (OU) DMs (60+ % of claimed usage from Rarely to Daily): *might can* (86,21%), *might no can* (82,45%), *will can* (77,19%), *willnae can* (72,72%), *should can* (70,18%), *might could* (65,52%), *might no could* (63,8%).

(ii) Sometimes Used (SU) DMs (40–60%): *wouldnae could* (59,65%), *will no can* (57,14%), *may no can* (53,57%), *mustn't could* (46,42%), *wouldn't could* (43,45%), *would could* (40%).

(iii) Rarely Used (RU) and Never Used (NU) DMs (0–40%): *must no could* (36,85%), *should could* (35,71%), *may should* (34,55%), *will might* (33,93%), *may not could* (31,48%), *must wouldn't* (18,52%), *might couldn't* (14,29%).

Despite the widespread agreement in the literature that MMs are rare and recessive, Hawick DMs still seem present and active in speech, based on claimed usage. However, not everyone seems equally aware of it, and a number of speakers don't recognise nor use them. Nonetheless, DMs seem to be a persistent feature of Hawick Scots, notably among younger speakers. The survey suggests that DMs have been undergoing complex changes over the years. A case in point is the increase in claimed use of new DMs like *may could* and *may should* in the space of a decade when previous research did not attest these forms. They may be imports from American dialects in which the forms exist (Bour 2014: 249), although this remains to be confirmed, keeping in mind that a notable change in spoken and written usage since the early 80s throughout the United Kingdom is the use of *may* instead of *might*. The fact that younger speakers consistently recognise and claim usage of these forms, regardless of their views on what is grammatical or socially acceptable, suggests that DMs in Scots are not endangered or extinct dialect features.

The data and judgments elicited in Task 3 will be presented in the next section as provisional support for the main hypothesis of this study and its arguments.

5 Syntactic Implications of DMs Re-evaluated with Respect to the Scots System

At first sight, DMs pose a problem for the Chomskyan generative rule that in English, one and only one verb per clause may bear tense, and since an auxiliary has the effect of carrying tense by becoming the head of the highest, finite VP, it follows that it cannot iterate in a clause. Rather than postulating the actual occurrence of two modals, which seems far-fetched, the issue is to reach an accurate description of DM syntax in keeping with standard modal syntax. The vast majority of accounts dealing with this issue in the literature are grounded on the American DM systems. We will see that such a picture is skewed, and that the syntactic behaviour of the Scottish DM system warrants a close re-examination of the problem.

5.1 *An Adverb and a True Modal: Battistella (1995)*

Battistella (1995) tackles the question of DM syntax in American systems. According to him, a 'double modal' is in fact an idiosyncratic sequence of an adverb and a 'true' modal. He grounds his argument in the Core Grammar framework of Chomsky & Lasnik (1977) which postulates that Universal Grammar is 'a small core set of general principles subject to a restricted degree of variation' (Battistella 1995: 19). From this he distinguishes a periphery that empirically occurs in various grammars, and the DM construction would then emerge from an extension of the mechanism in English that licenses adverbs to some morphosyntactic constituents of the traditional system of modal auxiliaries.

Battistella's arguments include three diagnostics which were run by this same study in Task 3 of the questionnaire. The respondent was asked, if he could and wanted, to turn each of the original six sample utterances mentioned previously into a negative (or a positive if it was a negative to start with), an interrogative, and a question-tag (of the type *You did do it, didn't you?*). Battistella supports the following syntactic manipulations for *might could*, attested in the literature:

(9) a. You **might couldn't** tell me where the administration building is.
b. **Could you might** tell me where it is?
c. You might could tell me, **couldn't you**?

The 'TENSE affix' which is inverted, negated or postposed would point towards the 'true' modal.

There are several objections to be made when looking at the Scots system, anticipated in fact by Battistella: 'DMs in Scots, which have somewhat different syntactic properties, may be a different sort of construction entirely and treated by a distinct mechanism' (1995: 30). Firstly, the speakers of Hawick who produced an interrogative DM for *might could* show that both *could X might* and *might X could* are acceptable; the fact that most respondents produced *could* in tag-position can be taken as support for Battistella's analysis. But application of these diagnostics on other sequences reveals that the true modal in *will can* would be the first one *will* (*will you can? You will can, won't you?*); *would* would be the true modal in *would could* (*Would he could?* + slight edge of *wouldn't he* (13 respondents) over *couldn't he* (10 respondents)); and *should* would be the true modal in *should can* (*Should he can? He should can, shouldn't he?*). Moreover, Battistella notes inconsistencies even in American DM negation patterns, i.e. sometimes the first constituent and not the second bears negation.

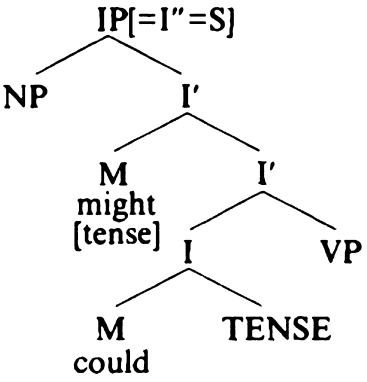

FIGURE 8.1
Syntactic structure of *might could* (Nagle 1997: 1521)

Battistella argues that the first modal of a DM is 'a defective modal form which modifies the head modal *could*—an adverbial rather than an adverb' (1995: 27), a kind of adverbial hybrid enabled by Head Feature Licensing (Travis 1988) creating a sub-type of adverb of its own within the class of IP adverbs which is speaker-oriented rather than subject-oriented. This insight is precious for the following sections.

5.2 *Other Useful Accounts of American DM Syntax with Their Strengths and Weaknesses with Respect to the Situation in Modern Scots*

Nagle (1997) agrees with Battistella's diagnostic patterns, and goes further by positing a second intermediate projection I′ that would account for the ambiguity between the first and second M of IP as carriers of tense and likely candidates for negation. This is shown in Figure 8.1.

At the top we have IP, which is at sentence-level (S) and is the maximal projection (I″). Then a first intermediary projection I′ interprets the first modal as [tense] because of its ability to be negated. Then a second intermediary projection occurs to show the interaction between the second modal, which is both the head I and the true carrier of TENSE (because of its ability to be negated *and* inverted) and the non-finite VP that follows (which is underspecified here as there are a near-infinity of possibilities).

But not only does this schema assume that I bears the true TENSE of the sentence on the sole evidence of inversion in questions (which appears to be contradicted by data in Scots, see 5.1); it consequently does not really solve the problem shown earlier that the presence of two 'true' modals would pose.

Elsman & Dubinsky (2009) propose a different description contending that both modals can be 'analysed as true modals, behaving exactly as they would in a single modal construction' and that 'they are, at the same time, syntactically distinct, (…) the properties of the DM construction [resulting] from the interactions between these two modal types' (75). This hypothesis is interesting as a continuation of Nagle (1997) and is one of the more convincing accounts in the

current literature, notwithstanding its theoretical stance and apparatus. Our own account picks up on this insight, whilst differing from it in several ways.

5.3 *A New Hypothesis for the Syntax of DMs in Scots: A Context-Dependent Speaker's Choice*

The syntactic analysis of DMs in Scots cannot be done without taking into account some semantic and pragmatic parameters relating to context. The near-entirety of available research on the topic is context-free; it analyses DMs as part of sentences, and not utterances. It makes use of questions and tag formation as abstract manipulations without really acknowledging that they may be operations made by a speaker with a communicative intention. Elsman & Dubinsky (2009) provide the interesting insight that both modals in these constructions may have the properties of true modals, but despite its efforts it does not escape the one clause-one tense marker rule that so many authors have cited as a crucial problem.

Our hypothesis is that in each and every specific context where a DM is produced, the speaker has the choice between two potentially true modals; they may select one as the realised true modal, and recategorise the other as an idiosyncratic adverb along the lines defined by Battistella. It is a subtle choice which is implicit in simple, assertive utterances, but explicit when manipulations such as those in the questionnaire are made.

(10) a. He will can go tomorrow, **won't he**?
b. He will can go tomorrow, **can't he**?

Both utterances are apparently the same in their main clause, but the tag shows which of the modals is chosen as the true one. The speaker either has the intention of focusing on 'futurity' with *will* or 'ability' with *can*. The other modal then becomes an adverbial hybrid, which would be glossed as an epistemic adverb *surely* or *certainly* for *will*, or a 'root adverb' such as *possibly* or *easily* for *can*.

(11) a. **Could** he might go?
b. **Might** he could go?

Here again, the speaker would choose to focus on (un)certainty with *might* or ability with *could*. The item left aside becomes the hybrid. This kind of detail is impossible to determine by looking at a context-free sentence which would be virtually the same every time, i.e. *He might could go*. Regardless of how frequent inverted and tag DMs actually are (they appear to be significantly

rarer than assertive DMs), multiplying spontaneous elicitation of those types is expected to help confirm what we presently coin as 'Speaker's Choice hypothesis'.

Such an account has the advantage of not only explaining the very tangible cases of ambiguity collected in the questionnaire in Hawick, but also accommodating cases where a true modal has a definite or frequent 'edge' over the other; it could point out to DMs that are in a sense 'conventionalised' or at least presets for a typical context they would be used in. For instance, if the true modal in *may should* is *should*, as our data seems to indicate, it is maybe because this DM is a preset for contexts in which the question of 'obligation' is central to the communicative interaction, and the question of '(un)certainty' is secondary and yields the modal *may* as an adverbial hybrid.

This hypothesis could be developed as a new, more convincing and more realistic account of the syntactic structure of DMs, that retains the unique interplay of true modals suggested by Elsman & Dubinsky while accommodating it to the syntax of Standard English and reducing the amount of postulated formal features.

6 Conclusion

Rather than being extinct, DMs still seem to be active morphosyntactic features of Borders Scots. For years, these constructions were left on the side by contrast with American DMs, to which the bulk of the literature on MMs was dedicated. This article is a defence for a new, specific linguistic enquiry on MMs in Scotland. Its aim was to provide an updated general picture thereof through the case study of DMs. Their formal and functional implications need to be fully examined before moving on to TMs, QMs, and MMMs. By doing so, we hope to enable the elaboration of a new, unified theory of MMs in English, instead of considering the American and Scots systems as separate.

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CHAPTER 9

The Contextualising Effects of the Modal Particle *vel* in Norwegian Interrogatives

Thorstein Fretheim

1 Introduction

In many languages, polar interrogatives are either syntactically independent sentences used in requests for confirmation or disconfirmation of the content of the propositional form developed by means of pragmatic inference combined with the sentence's truth-functionally incomplete logical form, as in *Did you feed the dog?*, *Didn't you feed the dog?*, or else syntactically bound clauses adjoined to a preceding declarative host sentence, as in *You fed the dog, did you?*, *You fed the dog, didn't you?*, *You didn't feed the dog, did you?*. The latter are syntactic constructions whose communicative role is to seek the addressee's confirmation of the truth of the proposition pragmatically derived from the declarative host sentence.

This paper* examines how free interrogatives relate to syntactically bound interrogatives, a.k.a. tag questions, in the grammar of spoken Norwegian, more specifically how the modal particle *vel* in both types of positive-polarity interrogative affects the addressee's inferential steps toward comprehension of the speaker's informative intention, and how the bound and the free interrogatives modified by *vel* differ semantically. My aim is to demonstrate that, while a Norwegian *vel*-modified positive tag question after a negative declarative host codes a request for confirmation of the proposition associated with the syntactic host, the speech act performed by means of a free interrogative modified by *vel* is an assertion of the truth of the negative counterpart proposition. Special attention will be given to the rather complex input conditions that apply to licit use of *vel* in free interrogatives, conditions that must have developed independently of the properties and the usage of tag questions. Human beings have the mental capacity to attribute beliefs and desires to others, known as Theory of Mind (ToM) in cognitive psychology. We are able to think about other people's as well as our own thoughts, and we can talk or write about them, that is, we *metarepresent* them, an essential notion for relevance theorists (e.g. Sperber, 2000; Noh, 2000; Allott, 2017).[1] In dyadic conversation, interlocutors engage in mind-reading, notably interpretation of each other's

thoughts as a contextual prerequisite for tailoring one's own stimuli to one's beliefs about the interlocutor's beliefs, intentions, or desires.

Polar interrogatives are not descriptive of a state of affairs, they are interpretive metarepresentations of thoughts entertained by the speaker, but assumed by the speaker to be more strongly manifest (Sperber & Wilson, 1986/1995) to the hearer. Their affirmation by the hearer is presumed to be relevant information to the speaker. In Wilson & Sperber (1988a: 150–151) they are described in the following way, "… although yes–no questions have fully propositional forms, and therefore describe determinate states of affairs, they are never descriptively used. The propositional attitudes encoded by interrogatives are not descriptive but interpretive: their propositional forms are entertained not as true descriptions of states of affairs, but as faithful enough interpretations of thoughts the speaker regards as desirable to someone (not necessarily herself)."

Relevance theorists make a theoretical distinction between two kinds of semantics: conceptual semantics and *procedural semantics* (Blakemore, 1987, 2002; Wilson & Sperber, 1993; Wilson, 2016; Carston, 2016; Escandell-Vidal, Leonetti & Ahern, 2011; Nicolle, 2015; Hall, 2007; Fretheim, 2000, 2016, 2017a, 2017b, 2019). While members of open lexical classes encode a concept, inferentially adjustable in context, expressions whose semantics is of the procedural sort encode a recipe for how to manipulate, in the inferential phase of utterance comprehension, the conceptual structure that constitutes the contextually independent logical form of the linguistic stimulus. The addressee's compliance with the encoded procedure is supposed to eliminate, or narrow considerably, the gap between sentence meaning and speaker's meaning.

Modal particles have no denotational meaning. Their lexical semantics is procedural, not conceptual. Like other expressions of procedural meaning, their role in communication is to give instructions about how to draw inference "by creating cognitive 'shortcuts' that the hearer takes advantage of during utterance interpretation." (Assimakopoulos, 2015: 59).

Section 2 of this paper compares tag question constructions in English and Norwegian. Section 3 examines the communicative role of the particle *vel* in syntactically independent polar interrogatives in spoken Norwegian, especially the way it contextualizes the speech act for the addressee. This particle only appears in interrogatives with positive polarity, but a *vel*-modified free interrog-

1 A metarepresentation is an interpretive representation of a representation (mental, linguistic, pictorial or other), which is supposed to preserve salient features of the original.

ative is used to assert the truth of a proposition with negative polarity. Section 4 speculates on the historical origin of the particle *vel* in interrogatives, free and bound ones. Section 5 concludes the paper.

2 How Do Norwegian Tag Questions Differ from English Tag Questions?

2.1 *English Tag Questions Attached to a Positive Declarative*

The declarative host to which a tag question is added contains an interpretation of a thought that will be relevant to the speaker if the addressee confirms its truth. English grammar has two different types of syntactically bound tag questions attached to a positive declarative, but just one type when the host sentence is negative. This subsection discusses the semantic difference between a positive-polarity and a negative-polarity tag added to a positive-polarity declarative in English grammar as well as the relationship between negative-polarity tag questions and free negative interrogatives in English, while subsection 2.2 takes a look at English tag questions attached to a negative declarative.

In tag question constructions, there must be agreement between what the declarative host conveys about the speaker's epistemic attitude and what the syntactically postposed tag question indicates. The speaker assumes the addressee's perspective on the content of the declarative sentence, and wants to know if the addressee endorses the speaker's interpretation. The host and the tag are functionally interconnected. Their combination means that the thought attributed to the addressee is presented as mutually manifest (Sperber & Wilson, 1986/1995), though judged by the speaker to be more manifest to the addressee, which is why the speaker turns to the addressee for confirmation of the truth of the assumption metarepresented in the declarative host.

When the polarity of the host is positive, a speaker of English is free to choose between a tag question with the same polarity as the host sentence, and one with negative polarity, the opposite of what the host displays (e.g. Houck, 1984). The speaker's choice between a same-polarity tag and an opposite-polarity tag depends on the source of information that prompted its production. Thus, the tags in (1) and (2) differ in terms of the kind of evidentiality indicated by the polarity of the tag.

(1) It's necessary to book in advance, is it?

(2) It's necessary to book in advance, isn't it?

(1), with its positive polarity in host and tag, provides the procedural information that the utterance was caused by something said or implied by the addressee immediately prior to its production, information that triggers inference leading to expression of a proposition attributed to the addressee, but entertained by the speaker as well at the time of utterance. On the other hand, an utterance of (2) with a negative tag after a positive host gives the addressee the procedural information that the assumption metarepresented in the declarative is based on something the speaker seems to remember, maybe just vaguely, as opposed to information that seems to follow directly from mental processing of a newly impinging stimulus.

The consequence-marking connective *so* in (3)[2] is an acceptable, possibly ironic, addition to the same-polarity construction in (1). The conclusion is not necessarily the speaker's; it could reflect the speaker's reading of the addressee's mind.

(3) So it's necessary to book in advance, is it?

An opposite-polarity structure with a negative tag would sound slightly less natural with the initial connective *so* in place. However, a free negative interrogative like the one in (4) may be added as a follow-up request for a verbal reaction from the addressee.

(4) So it's necessary to book in advance.—Isn't it?

So instructs the addressee to read the declarative as the speaker's conclusion that it is necessary to book in advance, and the tag question in (3) indicates that this conclusion is prompted by the content of something the addressee said immediately before. It is harder to reconcile the connective *so* with the syntactic structure of (2) above, where the negative tag indicates that the thought expressed is extracted from a set of assumptions stored in the speaker's long-term memory. Because the negative-polarity question in (4) is not a tag but a truncated free interrogative, there is no perceived clash there between what *so* indicates about the source of information and how the follow-up interrogative added after a brief pause should be interpreted. The interrogative *Isn't it?* could be a sign of impatience on the part of the speaker of (4). As the addressee did

2 *So* indicates that the relevance of the metarepresented propositional form lies in the fact that it introduces a contextual implication of the content of the stimulus that prompted the speaker to use the connective (Blakemore, 1988).

not immediately confirm the truth of the speaker's conclusion, the speaker may think that the addressee does not accept the conclusion as valid.

In contrast to (4), a free, positive-polarity interrogative added after an intervening break will not normally be relevant,[3] as indicated in (4′).

(4′) So it's necessary to book in advance.—#Is it?

The free, positive-polarity interrogative in (4′) does not express the same procedural meaning as the segmentally identical tag question in (3). Rather, the elliptical question *Is it?* in (4′) seems to express a sceptical attitude to the positive-polarity proposition derived from the preceding declarative, but a signalled sceptical attitude would contradict the procedural meaning of the connective *so*—though irony might be involved in the case of (3).

The pair of (5)–(6) illustrates the same contrast as (1) versus (2).

(5) You collect stamps, do you?

(6) You collect stamps, don't you?

If the speaker is in the addressee's home and has stopped in front of something that looks like part of a stamp collection, the speaker's interpretation of that visual stimulus could cause the request for confirmation expressed in (5). (6) contextualizes differently. Suppose we stipulate that the physical environment is the same as for (5). The procedural meaning of the opposite-polarity tag in (6) then supports the inferred premise that, seeing the stamps, the speaker recollects that the addressee is a stamp collector, and the speaker now wants confirmation of the assumption that the stamps in front of them do belong to the addressee's stamp collection. (6) is an indirect way of asking a question about what seems to be a likely connection between what the speaker is looking at and certain information about the addressee that is stored in the speaker's long-term memory and activated by the sight of the stamps. An utterance of (6) could even have been produced out-of-the-blue, as a way of preparing the

3 Whenever the adjective 'relevant' or the noun 'relevance' appears in this text, it is the relevance-theoretic notion that is intended, not the everyday uses of these words. Relevance in Relevance Theory (Sperber & Wilson, 1986/1995) is a property of perceptual stimuli, in particular so-called 'ostensive stimuli' of the verbal kind that make manifest an intention to make an assumption (or assumptions) manifest to the parties in a communicative event. An assumption is relevant in a context to the extent that its cognitive effects in this context are large and to the extent that the mental effort required to process it is small (Carston, 2002).

addressee for the speaker's introduction of a new discourse topic. An utterance of (5), however, cannot be relevant unless it is an immediate reaction to a perceived stimulus, verbal or non-verbal.

In contrast to positive-polarity tag questions, production of free positive interrogatives is consistent with an epistemically open attitude. Negative interrogatives are generally more biased than their positive counterparts, and frequently communicate an epistemic attitude that is the opposite of what the overt negative polarity suggests (e.g. Fretheim 1998). Negative interrogatives like (7) and (8) could be relevant responses performed by someone who questions the addressee's propositional attitude metarepresented by the negative propositional form of those sentences. (7) would then express the belief that it is necessary to book in advance, and (8) would express the belief that the addressee is a stamp collector. In either case, the communicated information about the speaker's epistemic attitude is due to what relevance theorists call a higher-level explicature.[4]

(7) Isn't it necessary to book in advance?

(8) Don't you collect stamps?

The speaker can change the relevance of these questions by using the full form *not* instead of the contracted, vowel-free negation marker and give *not* a prosodic boost which indicates that the speech act performed by means of (7′) or (8′) is a genuine request for confirmation of the negative propositional form.

(7′) Is it NOT necessary to book in advance?

(8′) Do you NOT collect stamps?

The full form *not* can be used in tag questions as well, but tag question constructions are always epistemically biased, as the polarity of the declarative host indicates the speaker's own (possibly rather weak) belief at the time of utterance.

What would be the more relevant response to (7) and (8) above on a given occasion, a response that confirms the negative thought expressed, or one that confirms its affirmative counterpart? For Wilson & Sperber (1988a, 1988b),

4 Communication of a higher-level explicature involves embedding of the propositional form of an utterance under a description of the speech act performed or a description of the speaker's propositional attitude (Blakemore, 1992; Wilson & Sperber, 1993).

confirmation of the metarepresented negative assumption is more relevant than confirmation of the contrary assumption. An answer that goes against the speaker's expectations is more relevant, they say, because it affects the speaker's cognitive environment more than an answer that just strengthens a belief already entertained by the speaker. However, a negative interrogative like (7) could be an attempt to persuade the addressee to book in advance. That would be an implicated consequence of an utterance of (7). If that is what motivates the speaker's production of the negative interrogative, the stimulus is primarily meant to be relevant to the addressee, and its relevance will depend on the addressee's recognition of the speaker's higher-level explicature paraphrasable as 'I question the assumption that it is not necessary to book in advance'.

In producing (7), the speaker may be acting in the addressee's best interest by recommending advance booking, an indirect speech act accomplished by way of an implicature. As for (8), it is probably less likely that there is any implicated meaning that is meant to have consequences for the addressee's subsequent behaviour. The relevance of the stimulus may be restricted to the fact that the speaker wants to know if the addressee is a stamp collector, in a discourse where this information seems relevant to the speaker but where the addressee has as yet not confirmed it.

Wilson & Sperber (1988a, 1988b) looked at free interrogatives only, but the intended pragmatic interpretation may be the same for the free interrogative in (7) and the positive-polarity declarative followed by a negative tag question in (2), both repeated here.

(2) It's necessary to book in advance, isn't it?

(7) Isn't it necessary to book in advance?

One cannot read directly off the propositional form of a negative polar interrogative like (7) whether the speaker is challenging the addressee by metarepresenting an assumption that contradicts the speaker's own belief, or else taking a more neutral position by asking in all sincerity if the addressee believes the negative proposition to be true. Just as the linguistic form of an utterance underdetermines its propositional content, it may underdetermine the speaker's propositional attitude, and this is definitely true of negative interrogatives (Fretheim 1998). It is a plausible assumption that the emergence of the tag question construction with opposite polarities in host and tag, like (2), was spurred by the fact that it resolves the pragmatic ambiguity of free negative interrogatives like (7).

Sentence sequences like the declarative in (9) followed by the afterthought interrogative *Isn't it?* may have been the historical input to the development of syntactically complex tag question sentences like (2) and (6), which disambiguate the speaker's propositional attitude in a way that the free negative interrogatives of (7) and (8) do not.

(9) It's necessary to book in advance, I suppose.—Isn't it?

The affirmative declarative modified by the mollifying modal marker *I suppose* in (9) shows that the following interrogative is a request for confirmation of the assumption entertained by the speaker and communicated by way of the declarative.

If the negative-polarity interrogative is meant to reflect an epistemically open view of the subject matter, the speaker could increase the relevance of (9) by adding the disjunctive coordinator *or* before the elliptical interrogative, as shown in (10). The overt disjunction indicates that the speaker admits there may be a difference of opinion, and moreover discloses the sentiment that the addressee probably knows best.

(10) It's necessary to book in advance, I suppose.—Or isn't it?/Or is it not?

The added disjunct sentence indicates that the speaker takes one step back and concedes that it does not necessarily follow from the interactants' mutually manifest set of contextual premises that advance booking is necessary. Unlike the perfect match between a positive declarative and a negative tag question, there is a deliberate attitudinal mismatch between the declarative in (10) and the afterthought interrogative, a situation that does not arise in the case of tag question constructions. The addressee's recognition of the relevance of the linguistic stimulus depends on the fact that the presence of the connective *or* forces the addressee to process the interrogative as a metarepresentational act of questioning the thought expressed in the preceding declarative.

2.2 *English Tag Questions Attached to a Negative Declarative*

Opposite polarity in host and tag is a grammatical requirement in English when the polarity of the host is negative. The polarity of the tag is then invariably positive, as in (11) and (12).

(11) It isn't necessary to book in advance, is it?

(12) You don't collect stamps, do you?

The procedural-semantic difference in signalled evidentiality between the members of pairs like (1)–(2) or (5)–(6) with positive polarity in the declarative host is neutralized when the polarity of the host sentence is negative. An utterance of (11) or (12) is therefore neutral with respect to whether the speaker's interpretation of the addressee's epistemic stance rests on information stored in long-term memory or on inference activated by some verbal or non-verbal stimulus that the speaker is reacting to at the time of utterance.

A negative interrogative added as an afterthought comment on a negative declarative, as shown in (11′) and (12′), would be highly confusing. This presumably accounts for the non-existence of negative tag questions attached to negative declaratives.

(11′) It isn't necessary to book in advance.—#Isn't it?

(12′) You don't collect stamps.—#Don't you?

In contrast to the situation in English, Norwegian tag question constructions do offer procedural information about two distinct sources of information even when the polarity of the host is negative. There are two linguistically distinct types of tag question in Norwegian syntax regardless of the polarity of the declarative host. The options available to speakers of Norwegian are presented in subsection 2.3.

2.3 *Norwegian Tag Question Constructions*

English (1) translates into Norwegian as (13), and English (2) translates as (14).[5]

(13) *Det er nødvendig å forhåndsbestille, er det det?*
it is necessary to book-in-advance is it that
'It's necessary to book in advance, is it?' (What you're saying seems to imply that.)

(14) *Det er nødvendig å forhåndsbestille, er det ikke* (*det*)*?*
it is necessary to book-in-advance is it not that
'It's necessary to book in advance, isn't it?' (That's what I've been told.)

5 The abstract-entity, anaphoric demonstrative *det* ('that') that represents the positive proposition metarepresented in the declarative host is obligatory when the tag is positive, as in (13), but optional when it is negative, as in (14), and when the tag includes a modal particle, as in (18) and (20) below.

Similarly, (15) corresponds to English (5), and (16) corresponds to (6).

(15) *Du samler på frimerker, gjør du det?*
you collect on stamps do you that
'You collect stamps, do you?' (I didn't know that.)

(16) *Du samler på frimerker, gjør du ikke (det)?*
you collect on stamps do you not that
'You collect stamps, don't you?' (I know you used to be a stamp collector.)

Similar to what happens when the polarity of the host is positive, as in (15) in contrast to (16), there is also a procedural-semantic difference between two distinct Norwegian tag questions attached to a negative declarative host, and this contrast corresponds semantically to the difference in evidentiality illustrated by (15) and (16). Nevertheless, when the Norwegian declarative host is negative, the polarity is positive in both types of tag. The host in (17) and (19) is followed by a particle-free tag like the ones in (13) and (15), respectively, but in (18) and (20), there is an added modal particle *vel*. Its presence causes the addressee to activate the same idea about the speaker's source of information as the negative tag after a positive host: the information prompting the negative metarepresentation must have been retrieved from the speaker's memory.

(17) *Det er ikke nødvendig å forhåndsbestille, er det det?*
it is not necessary to book-in-advance is it that
'From what you're telling me it looks as if it may be necessary to book in advance, but is that really the case?'

(18) *Det er ikke nødvendig å forhåndsbestille, er det vel (det)?*
it is not necessary to book-in-advance is it PRT that
'Can you confirm my belief that it is not necessary to book in advance?'

(19) *Du samler ikke på frimerker, gjør du det?*
you collect not on stamps do you that
'You a stamp collector? I would never have thought that.'

(20) *Du samler ikke på frimerker, gjør du vel (det)?*
you collect not on stamps do you PRT that
'Can you confirm my belief that you don't collect stamps?'

The contrast in procedural information between positive, particle-free tags and positive tags with the particle *vel* equals the difference in evidentiality commented on above. (17) and (19) without *vel* are syntactic structures that the addressee will relate directly to the speaker's reaction to a perceived stimulus, while the *vel*-modified tag questions in (18) and (20) indicate that the speaker's request for confirmation rests on stored information brought to conscious awareness in the course of the conversation, information believed by the speaker to be more strongly manifest to the addressee. (17) is the preferred form if the speaker hopes that it is unnecessary to book in advance but wants to check if something the interlocutor has said means that it may be necessary after all. (18) with the *vel*-modified tag indicates that, as far as the speaker knows from previous experience, there is no need to book in advance, but the speaker wants to learn if the addressee will confirm that assumption. The speaker of (19), whose positive tag does not contain the particle *vel*, seems to be prepared for the information that the addressee may actually be a stamp collector, contrary to the speaker's expectation, while the speaker of (20), whose tag includes *vel*, stresses the unlikelihood of an answer that goes against the negative metarepresentation.

In the same vein, the pair of (21)–(22) illustrates that, when the declarative host is negative, the tag without *vel* in (21) indicates that there had better be no nuts in the cake, although some newly received information makes the speaker suspect that it could contain nuts. (22), with *vel* in the tag, indicates that the speaker believes the negative proposition to be true, but seeks its confirmation to be on the safe side.

(21) *Det er ikke nøtter i den kaka, er det det?*
it is not nuts in that the.cake is it that
'There are no nuts in that cake, are there?' (If there are nuts in it, it's not for me.)

(22) *Det er ikke nøtter i den kaka, er det vel (det)?*
it is not nuts in that the.cake is it PRT that
'There are no nuts in that cake, are there?' (I take it that it contains no nuts.)

The linguistic difference between the tag questions in (21) and (22) conjures up certain differences relating to the speaker's context-dependent input. Suppose the speaker of (21) is allergic to nuts and is offered a taste of a cake that looks a bit suspicious. The speaker fears that it may contain traces of nuts, and wants to be assured of the truth of the metarepresented negative proposition.

The discourse topic of (22), in contrast, may be the recipe for a particular cake. It is important for the speaker to make sure that the recipe does not mention nuts as a requisite ingredient. Here the presence of *vel* in the tag suggests that the speaker expects the addressee to pay attention to the implicated fact that some people are allergic to nuts.

It is not so that the particle-free tag is contextually neutral, the unmarked type, like the corresponding positive English tag after a negative declarative, and that the added particle *vel* adds information which means that the tag question contextualizes in a more complex manner than the particle-free alternative. The form of the tag question in (21) places heavier constraints on the addressee's pragmatic inference than the corresponding positive-polarity tag question in English, and the rather obvious reason for this is the existence of the linguistic alternative appearing in (22), which includes the modal particle *vel* and directs the addressee to information stored in the speaker's memory, just like English or Norwegian negative tags after a positive declarative.

As stated above, the historical origin of the negative tag attached to a positive declarative host in Norwegian is likely to be syntactically free afterthought interrogatives. The particle *vel* occurs in free interrogatives too, and the procedural semantics and pragmatic implications of *vel* in free interrogatives is the topic of the remainder of this paper. It will be argued that what is communicated as a weak assumption in Norwegian tag question constructions with a negative-polarity declarative and a *vel*-modified positive tag is actually a straight assertion of the truth of a negative proposition in free, positive-polarity interrogatives.

Unlike *vel* in tag questions, the appearance of this particle in free interrogatives is by no means familiar to all native speakers of Norwegian. Those who are competent users of it (in 2019) are apparently mostly urban, elderly speakers (like myself).[6] The way that *vel* contextualizes in free interrogatives cannot be expressed by means of a few English glosses. There are contextual constraints on its licit use in interrogatives which do not pertain to *vel* in positive-polarity tag questions.

The particle *vel* as a constraint on the addressee's pragmatic interpretation of Norwegian free interrogatives is the topic of section 3, where 3.1 describes the procedural semantics and the pragmatic function of free, *vel*-modified Nor-

6 A different modal particle *vel* is widely used by all speakers of Norwegian. This is an epistemic downtoner particle occurring exclusively in declaratives (Fretheim, 1981, 1991). Its pragmatic function resembles that of the cognate German modal particle *wohl*. No more will be said here about a possible synchronic relationship at the lexical level between that particle *vel* and the particle that is the topic of this paper.

wegian interrogatives, while 3.2 demonstrates how this particle constrains the kind of intonational phrasing that may be superimposed on the sentence form.

3 *Vel*-Modified Polar Interrogatives in Norwegian

3.1 *The Procedural Semantics of* vel *in Free Interrogatives*

An utterance of any one of the Norwegian interrogatives in (23)–(25) is at one and the same time a request for a response and an assertion that contradicts the positive propositional form. What makes this apparently paradoxical situation possible is the fact that one person is the addressee of the speaker's request for confirmation of the negative counterpart of the metarepresented positive proposition, and a different person, or party, is the addressee of the negative proposition communicated by the speaker, a physically present 3rd person addressee. The speaker trusts the 2nd person addressee to witness against the 3rd person addressee.

(23) *Er det vel nødvendig å forhåndsbestille?*
is it PRT necessary to book-in-advance
'Is it necessary to book in advance?' (Of course it isn't.)

(24) *Er det vel nøtter i den kaka?*
is it PRT nuts in that the.cake
'Are there nuts in that cake?' (Of course there aren't.)

(25) *Har vel de sagt noe til Anna?*
have PRT they said anything to Anna
'Have they said anything to Anna?' (Of course they haven't.)

What is made known in (23) is the speaker's belief that it is not necessary to book in advance, in (24) it is the belief that there are no nuts in the cake, and in (25) the belief that the people referred to have said nothing to Anna.[7] Observe that these structures should not be confused with the function of rhetorical questions. The speaker is convinced of the falsity of the propositional forms

7 In (23) and (24), the subject pronoun *det* is obligatorily unstressed, and the unstressed sequence *det vel* is cliticized to the verb form *er*. In (25), the placement of the pronominal subject pronoun *de* after *vel* means that the pronoun is accented and so defies cliticization. The order of *Har de vel sagt noe til Anna?*, where an unstressed pronoun *de* is enclitic to the verb, is a grammatically well-formed alternative to the order in (25).

expressed by means of these sentences, yet the 2nd person addressee is requested to confirm the negative counterpart of the metarepresented assumption that the speaker attributes to a third conversational partner present, someone who is in disagreement with the speaker.[8]

There are three response words in Norwegian (Fretheim, 2014, 2017a). *Ja* ('yes') affirms a positive assumption, *Nei* ('no') denies a positive, or affirms a negative, assumption, and *Jo* ('yes') denies a negative assumption. (26) is a verbal exchange in which the answer B_1 denies the assumption that the propositional form metarepresented by A is true, and the answer B_2 affirms it. *Jo* in B_3 can only address a negative-polarity propositional form and reject it as false, but the polarity of A's propositional form is positive in (26), and so fails to match the response *Jo* that requires a negative antecedent.

(26) A: *Er det nødvendig å forhåndsbestille?*
is it necessary to book-in-advance
'Is it necessary to book in advance?'

B_1: *Nei.*
('No. It is not necessary to book in advance.')

B_2: *Ja.*
('Yes. It is necessary to book in advance.')

B_3: *#Jo.*
(no negative-polarity linguistic antecedent is available)

Apart from the added particle *vel* in A's interrogative in (27), the dyads in (27) and (26) are structurally identical, but the incoherent answer in (27) is *Ja*, not *Jo* as in (26).

(27) A: *Er det vel nødvendig å forhåndsbestille?*
is it PRT necessary to book-in-advance
'Is it necessary to book in advance?' (It is not.)

8 The thought metarepresented in the interrogatives of (23)–(25) are not desirable thoughts, as in Wilson & Sperber's analysis of interrogatives (Wilson & Sperber, 1988a, 1988b); they are attributed thoughts that contradict the metarepresented positive-polarity propositional form.

B_1: *Nei*.
('No. It is not necessary to book in advance.')

B_2: *#Ja*.
(no positive-polarity linguistic antecedent is accessible)

B_3: *Jo*.
('On the contrary. It is necessary to book in advance.')

B's disjunctive answers in (27) do not target the metarepresented propositional form of A's utterance. What the response words *Nei* and *Jo* target in (27) is a negative proposition expressed by speaker A. The modal particle *vel* is responsible for the negation. While A's interrogative in (26) signals a neutral propositional attitude, the *vel*-modified interrogative in (27) encodes the explicature 'It is not necessary to book (whatever is being referred to) in advance'.[9] B's response *Nei* in (27) B_1 endorses A's explicated assumption that advance booking is not necessary, just as if B had uttered the negative declarative *Det er ikke nødvendig å forhåndsbestille* ('It is not necessary to book in advance') in the same context. B's response *Jo* in (27) B_3 rejects as untrue the explicated assumption that advance booking is not necessary. *Jo* indicates that B takes issue with A's opinion and forwards the opposite belief. *Ja* in (27) B_2 requires a positive-polarity linguistic anchor, but there is no such anchor, or antecedent, in A's utterance, so the answer *Ja* is not licensed by A's *vel*-modified interrogative. *Nei* is the collaborative response that A wants from B in (27). It confirms A's explicated negative proposition. *Jo* in (27) B_3 is a response that negates A's negative explicature, contrary to A's conviction, a verbal reaction that A may be put off by.

How, then, do the disjunctive talk exchanges in (28) differ in meaning from those in (27)?

(28) A: *Er det ikke nødvendig å forhåndsbestille?*
is it not necessary to book-in-advance
'Isn't it necessary to book in advance?'/
'Is it not necessary to book in advance?'

B_1: *Nei*.
('It is not necessary to book in advance')

9 The standard relevance-theoretic view is that no interrogative can express an explicature. It will be argued here that the Norwegian *vel*-modified interrogative does communicate an explicature with negative polarity.

B_2: *#Ja*.
(no positive-polarity linguistic antecedent is available)

B_3: *Jo*.
('It is necessary to book in advance')

Superficially, the negation marker *ikke* in (28) may impress one as having much the same effect on the addressee's choice of response word as the modal particle *vel* in (27), but there are some important differences. The negative interrogative in (28) metarepresents a negative propositional form without disclosing the speaker's own epistemic attitude to it, not in the absence of added contextual information. We cannot tell, without adding contextual information, if *Nei* in (28) B_1 signals disagreement or agreement with the first speaker's opinion of the subject matter. Nor can we tell if *Jo* in (28) B_3 signals agreement or disagreement without drawing on contextual constraints.

The particle *vel* does not change the polarity of the propositional form of A's interrogative. Its positive polarity is preserved. Negation is nevertheless present in the explicature communicated by means of A's utterance in (27). *Vel* is responsible for the polarity switch from positive to negative that matches the speaker's stance. If we do not accept the fact that A's utterance in (27) and other *vel*-modified interrogatives communicate an explicature, we fail to account for why these interrogatives license *Nei* and *Jo* as subsequent responses, but not *Ja*. When a Norwegian interrogative contains the particle *vel*, its positive-polarity propositional form does not reflect A's own belief. Rather, the metarepresented thought corresponding to the positive propositional form echoes a belief attributed to the 3rd person addressee who is obligatorily present as a participant in the communicative event, a belief that A rejects as false. While the corresponding tag question construction with a *vel*-modified tag is a request for confirmation of the negative proposition expressed in the declarative host, the free interrogative sentence modified by *vel* serves as a correction that counteracts the 3rd person addressee's belief, as interpreted by the speaker.

Thus, there are some crucial differences between the functions of the modal particle *vel* and the negation marker *ikke* in Norwegian polar interrogatives. *Vel* encodes the information that the speaker repudiates the content of the positive-polarity propositional form that the particle may be said to address, and explicitly communicates its negative counterpart, an exceptional semantic feature for an interrogative sentence structure. In comparison, use of a negative interrogative like (28) A is consistent with the belief that the metarepresented negative propositional form is false as well as the belief that it is

true, and contextually derived information will resolve the addressee's understanding of the speaker's epistemic attitude.

The particle *vel* in polar interrogatives contextualizes in a very special way in present-day spoken Norwegian. I have said that it requires a conversational setting in which three parties are present. In addition to the speaker, there are two addressees with entirely different roles. They will henceforth be referred to as the direct addressee and the indirect addressee, respectively. I propose to define the procedural semantics of *vel* in interrogatives as one instruction that is meant for the 2nd person direct addressee and a different instruction that is meant for the 3rd person indirect addressee. The addressees are assumed by the speaker to share the knowledge of how this particle imposes pragmatic constraints of type a. as well as type b.

(29) The procedural semantics of *vel* in Norwegian interrogatives:
   a. *For the direct addressee*:
      Construe the speech act as a request for agreement with the negative counterpart of the assumption that matches the positive propositional form of the interrogative.
   b. *For the indirect addressee*:
      Construe the speech act as an assertion of the negative proposition explicated by the speaker, whose content contradicts the metarepresented positive assumption attributed to the indirect addressee.

The direct addressee's potential failure to serve as the speaker's ally against the indirect addressee does not cause a miscarriage of the illocution. It just means that the speaker probably fails to persuade the indirect addressee that the positive proposition is false, because the direct addressee has unexpectedly sided with the indirect addressee.

Let me now illustrate the pragmatic effect of *vel* in polar interrogatives by presenting another example of a question followed by the direct addressee's answer in the form of a response word. The pragmatic consequences are as predicted by the procedural semantics of *vel* stated in (29). Speaker A in (30) tells an indirect addressee that Ronald Reagan's period as President of the United States preceded Jimmy Carter's, which, as we know, happens to be false.

(30) A: *Kom vel Carter før Reagan?*
   came PRT C. before R.
   'Was Carter US President before Reagan?'
   (expressing the false belief that Carter was not before Reagan)

B_1: *Nei*.
'No.'
(a false confirmation of the thought that Carter did not precede Reagan)

B_2: #*Ja*.
(no positive-polarity antecedent is available)

B_3: *Jo*.
'Yes.'
(a true denial of the thought that Carter did not precede Reagan)

The response *Nei* ('no') in B_1 affirms the false assumption that Carter's period in the White House did not precede Reagan's, perpetuating A's confusion with regard to the time of Carter's presidential period relative to Reagan's. B endorses A's denial of a belief advanced by the indirect addressee, here the belief that Carter preceded Reagan. *Ja* in B_2 is a *non sequitur*, because it would affirm the truth of a positive proposition, but no positive linguistic antecedent that matches the anaphoric response word *Ja* is accessible, because the *vel*-modified positive-polarity interrogative explicates the assumption that Carter's presidential period did not antedate Reagan's. Finally, *Jo* in B_3 communicates the true assumption that Carter preceded Reagan, a rejection of A's negative explicature communicated by way of a *vel*-modified interrogative. The response given in B_3 affirms the positive propositional form that A attributes to the indirect addressee and rejects the opposite belief espoused by A. By uttering B_3, speaker B risks to humiliate speaker A by failing to offer the confirmation that A is asking for. One possible side effect of the interrogative construction modified by *vel* is its potential threat to the speaker's face in case the direct addressee fails to behave as expected.

I feel that what initially appears to be an excursus may be useful at this point. The tag particle *da* (Fretheim, 1989, 2000, 2014, 2015; Fretheim, Boateng & Vaskó, 2002) is added to a declarative, an interrogative, or an imperative host sentence. In conjunction with the utterance-terminal boundary tone (H% vs. L%) assigned to the particle, the addressee of the *da*-modified polar interrogative in (31) is offered information about the speaker's epistemic attitude to the positive propositional form metarepresented in the interrogative host. It is a sceptical attitude when the terminal boundary tone is high (H%), as in (31a), but a conciliatory attitude when the terminal boundary tone is low (L%), as in (31b).

(31) a. *Kom Carter før Reagan, da-H%?*
came C. before R. PRT
'Are you really sure that Carter came before Reagan?'

b. *Kom Carter før Reagan, da-L%?*
came C. before R. PRT
'So Carter came before Reagan, then?'

Much as (31a) and (31b) are biased questions, they are still serious requests for (new) information, unlike *vel*-modified interrogatives. The tag particle *da* instructs the addressee to inform the speaker about the addressee's attitude to the propositional form of the interrogative. On the other hand, *vel* in the interrogative *Kom vel Carter før Reagan?* in (30) above tells us that A holds the belief that the negative counterpart of the metarepresented assumption that Carter preceded Reagan is true, asks the direct addressee to confirm that Reagan preceded Carter, and simultaneously informs the indirect addressee that this is the truth. There is a direct clash between the procedural meaning of the tag particle *da* (regardless of its terminal boundary tone) and the procedural meaning of the particle *vel*. The result, in (32), is a structure that is not well-formed.

(32) **Kom vel Carter før Reagan, da?*
came PRT C. before R. PRT

The co-occurring markers *vel* and *da* contextualize in two irreconcilable ways in (32). *Da* attached to an interrogative indicates that the speaker is seeking information about the temporal order of the presidents from an addressee whose encyclopaedic knowledge is believed to be more reliable than the speaker's, but *vel* indicates that the speaker is certain that Carter did not precede Reagan. One may legitimately speculate if this inconsistency really deserves the asterisk mark for grammatical ill-formedness in front of (32), but informants univocally reject (32) as an impossible sentence, without necessarily asking themselves why.

I said that the speaker of a *vel*-modified interrogative presents its invariably positive propositional form as a faithful interpretation (metarepresentation) of a belief attributed to the indirect addressee, a belief rejected by the speaker. Even a negative interrogative can be used to transmit a sceptical attitude to the metarepresented propositional form. An utterance of (33a) with the tonally raised tag particle *da*-H% expresses a doubtful opinion about the metarepresented negative propositional form. The tonal fall on the unaccented tag particle

da-L% in (33b) indicates the opposite propositional attitude, a readiness to accept the negative proposition if the addressee's response confirms its truth.

(33) a. *Kom ikke Carter før Reagan, da-H%?*
came not C. before R. PRT
'Didn't Carter come before Reagan?' (I thought he preceded Reagan.)

b. *Kom ikke Carter før Reagan, da-L%?*
came not C. before R. PRT
'Did Carter not come before Reagan, then?' (Can you confirm that?)

Regardless of the terminal boundary tone assigned to the tag particle *da*, the speaker of (33a) or (33b) genuinely wants to learn what the addressee thinks. Not so when the modal particle *vel* is inserted in a positive-polarity interrogative.

3.2 *Intonational Constraints Caused by* vel *in Interrogatives*

The intonational phrasings superimposed on a *vel*-modified interrogative like (27) A, *Er det vel nødvendig å forhåndsbestille?*, must be information-structurally compatible with the procedural semantics of *vel*. This implies that the intonation pattern must present the positive polarity of the propositional form as the metarepresented information focus of the utterance.

Those pitch movements in the East Norwegian fundamental frequency (Fo) contours of Figure 9.1 and Figure 9.2 below that are due to the speaker's global intonational gestures are the rising movements indicated by the arrows, two in Figure 9.1 because that Intonation Unit (IU) consists of two Focal Phrases (FP) terminated by the raised, focal phrase-tone H–, and a single one in Figure 9.2. Both Figure 9.1 and Figure 9.2 display a prosodic highlighting of the accented word form *er* ('is') in the Accent Unit (AU) [^{2}ER-det-vel-nød]$_{AU}$ that terminates an FP and so causes H– to dock on the initial, unstressed syllable *nød-* of the adjective *nødvendig* ('necessary'), a syllable incorporated in the first FP. The falling movements in the Fo contours have no phonological significance in East Norwegian intonation. They are transitional phenomena caused by prosodic properties of the accented words *nødvendig* and *forhåndsbestille*, respectively, the former with an East Norwegian Accent 1 (L*) on its second syllable -^{1}*ven-*, the latter with an East Norwegian Accent 2 (H* + L) on the first syllable ^{2}*for-*.

The low, level pitch at the end of Figure 9.2 is intonationally distinctive by virtue of its contrast to the rise triggered by the FP-final focal phrase-tone H– at the end of Figure 9.1. Thanks to my colleague Wim van Dommelen's cutting and splicing, the first two AUs were made identical in the two Fo contours, while

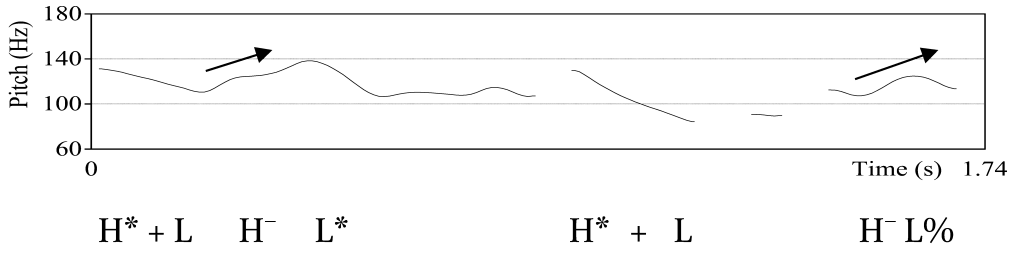

FIGURE 9.1 Polarity focus marked on the finite V plus a highlighted topic phrase

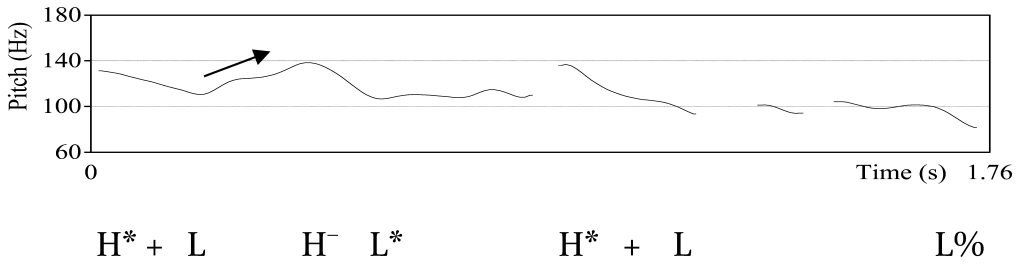

FIGURE 9.2 Polarity focus marked on the finite V plus a post-focal background phrase

the third and final AU is immediately dominated by an FP node in Figure 9.1 but extrametrical at the IU level in Figure 9.2, that is, immediately dominated by the top node IU in the hierarchy of intonational constituents, skipping the second FP node present in Figure 9.1. The former intonational phrasing generates an utterance-final rise which highlights the concept "to book in advance", while the intonation in Figure 9.2, where there is no final H⁻, attenuates the same phrase, a prosodic feature that is consistent with the fact that everything after the first FP contains discourse-given information. The speaker has the privilege to choose whether to make a prosodically prominent topic phrase out of the constituent "nødvendig å forhåndsbestille" ("necessary to book in advance"), as in Figure 9.1, or to leave it without a highlighting tone H⁻ at the end because the information it offers is exclusively discourse-given, as in Figure 9.2.

L% is a terminal boundary tone. That tone is a property of the IU, whereas H⁻ is a property of the FP. The terminal boundary tone is the same in Figure 9.1 and Figure 9.2. There is just a slight fall in fundamental frequency from H⁻ in the final syllable of Figure 9.1 to L% in the same syllable, but there is a mandatory fall at the end of any (East) Norwegian interrogative produced with a double-FP intonation structure. The fact that there is a fairly modest rise to H⁻ in the second FP of Figure 9.1 contributes to the impression that the final tone in Figure 9.1 is L%, not its counterpart H%.

Figure 9.1 and Figure 9.2 are images of the only two intonational phrasings that are licensed by the modal particle *vel* in Norwegian interrogatives. The issue at a given point in a conversation where a *vel*-modified interrogative appears is whether or not the positive propositional form metarepresented by the speaker reflects a factual state of affairs. In Figure 9.1, the topic is intonationally highlighted by the presence of the focal phrase-tone H⁻ in the final syllable of the second Focal Phrase (FP). The phrase-tone H⁻ docking on the final syllable of the first FP draws attention to the accented, sentence-initial copula form heading the Accent Unit (AU) that exhausts the FP, an example of polarity focus (Fretheim 1992, 2002, 2017b). It instructs the addressee to construe the information focus of the utterance as the truth value of the speaker's positive-polarity metarepresentation of the propositional attitude of the 3rd person indirect addressee. The complex predicate phrase meaning "necessary to book in advance" is treated as a focally accented topic phrase in Figure 9.1, whereas the absence of a second tone H⁻ at the end of Figure 9.2 indicates that the predicate phrase contains mutually manifest background information that is not in need of prosodic prominence intended to arouse the addressee's attention. The interplay of *vel* and the accentual polarity focus that highlights the sentence-initial copula form enables the addressee to identify the speaker's illocutionary point as a denial of the metarepresented assumption that it is necessary to book in advance, hence an assertion of its negative counterpart.

All other intonational phrasings permitted by the intonational phonology of (East) Norwegian, including broad-focus intonation where a single FP exhausts the IU, may be superimposed on the interrogative in Figures 9.1 and 9.2 only if the particle *vel* is removed. They are all blocked by the presence of the particle *vel*, because the information structure that they indicate would have contradicted the procedural semantics of *vel*. It is a reasonable thought that the intonation pattern of any *vel*-modified free interrogative increases the relevance of the utterance because it makes it easier for a native hearer to immediately capture the information structure of this type of linguistic stimulus.

4 Where Does *vel* in Norwegian Interrogatives Come From?

There is no Swedish equivalent of the Norwegian particle *vel* in interrogatives, but it does exist in spoken Danish, as do positive-polarity tag questions modified by *vel*. Maj-Britt Hansen (p.c.) points to a clinal difference in suitability that determines when use of this particle is fully acceptable in Danish polar interrogatives and when it is felt to be less natural. For instance, deontic modality seems to make *vel*-modified interrogatives quite acceptable in present-day

spoken Danish, as illustrated in (34) and (35) with the modal auxiliaries *må* ('may') and *skal* ('shall'), respectively.[10] Maj-Britt Hansen provided the data in (34)–(36).

(34) *Må Peter vel gå ud efter klokken ti?*
may P. PRT go out after the.clock ten
'May Peter go out after ten o'clock?' (He may not.)

(35) *Skal vi vel i skole i morgen?*
shall we PRT in school tomorrow
'Are we supposed to/obliged to go to school tomorrow?' (We're not.)

Danish *vel*-modified interrogatives are apparently less idiomatic when the propositional form metarepresents an indicative state of affairs, as in (36), where the truth value does not depend upon any established regulation or standard, unlike (34)–(35).[11]

(36) *?Er Peter vel kommet endnu?*
is P. PRT come yet
'Has Peter arrived yet?'

My Danish informants have told me that *vel*-modified interrogatives have a childish ring to it in present-day spoken Danish, and at the same time two informants gave vent to the opinion that this grammatical construction is archaic. I find it slightly paradoxical that a modal particle whose procedural semantics is as complex as the interrogative particle *vel* is judged to be typical of child language, but certain comments on this grammatical phenomenon from native Norwegian speakers do support the Danish observations that the speakers who are most likely to employ *vel*-modified interrogatives are children. However, it may be more accurate to say that they were children in the fifties or sixties but they still possess the competence that they acquired as children. A majority of those Norwegians who told me they are familiar with

10 The input constraint requiring the presence of an indirect as well as a direct addressee appears to be the same in Danish as in Norwegian.

11 The invariably unstressed modal particle cliticises to the finite verb in Norwegian syntax when there is no intervening accented phrase, so *vel* precedes *Peter* in the Norwegian versions of (32) and (34). My judgment, and that of my Norwegian respondents, is that there is no difference in acceptability in spoken Norwegian between denials of the type seen in (32)–(33) and denials of the type seen in (34).

the construction and occasionally did use it when they were kids are in the age group fifty+. Some elderly Norwegians, like myself, still occasionally use it, probably a habit that lingers on from the distant past when it was first acquired and then employed when it was socially suitable and the contextual input conditions were met.

In Modern Icelandic, there is a grammatical construction whose syntactic form and communicative function is said to equal the form and the semantics of the Norwegian construction examined here (Tolli Eyþórsson and Sirrý Sigurðardóttir, p.c.). The role of the adversative modal particle in Danish and Norwegian interrogatives is taken over by an Icelandic word that is better known as the existential quantifier in its neuter singular form, *nokkuð* ('something'). *Nokkuð* in (37) looks like the result of grammaticalization of the existential quantifier, a process that transforms it into a modal particle that makes this Icelandic interrogative equivalent to Norwegian (23) in section 3.1, *Er det vel nødvendig å forhåndsbestille*, whose acceptable intonation contours were rendered in Figure 9.1 and Figure 9.2 in subsection 3.2. Likewise, *nokkuð* in the Icelandic tag question construction in (38) contextualizes in the same way as *vel* in Norwegian tag questions after a negative declarative.

(37) *Er nokkuð nauðsynlegt að panta fyrirfram?*
is PRT necessary to book in-advance
'Is it necessary to book in advance?' ('It isn't.')

(38) *Það er ekki nauðsynlegt að panta fyrirfram, er það nokkuð?*[12]
that is not necessary to book in-advance is that PRT
'It isn't necessary to book in advance, is it?'

Present-day Norwegian and present-day Icelandic are two mutually unintelligible languages, but they may very well both have borrowed their respective interrogative *vel* and interrogative *nokkuð* constructions from Danish interrogatives that contain *vel*.[13] That this grammatical phenomenon does not exist in any spoken dialect of Swedish strengthens this hypothesis. Iceland fell under Danish rule in 1523 and remained part of Denmark until December 1, 1918. Nor-

12 Booth (2019: 159) argues that the Icelandic expletive *það* "emerged as a topic position placeholder in topicless impersonal constructions, on the model of an earlier restricted set of cataphoric contexts".

13 I find it necessary to emphasize that it is the syntactic construction, with its procedural meaning, that was presumably borrowed, as the switch-polarity particle *nokkuð* bears no formal resemblance to *vel*.

way was under Danish rule for 400 years, ending in 1814, and one of the two present-day Norwegian written standards is a direct development of Danish, in the course of the 20th century modified by quite a few morphological changes that distance it from the Danish language. The Danish influence is nevertheless strongly present in what may still be referred to (somewhat inaccurately) as urban spoken Norwegian.

While Norwegian and Icelandic may have borrowed *vel* from Danish, the Danish use of *vel* in interrogatives is something the Danes may have borrowed from their German-speaking neighbours south of the border. German *wohl* (a cognate of English *well* and Scandinavian *vel*) is an adverb of manner as well as a modal particle, the latter mainly found in declaratives but to some extent even in interrogatives in modern German, as in the following attested example.

(39) *Gibt es wohl bereits frische Erdbeeren?*
gives it PRT already fresh strawberries
'I wonder whether there are already fresh strawberries available.'

My conjecture is that the German interrogative construction with *wohl* was borrowed by Danish through language contact, and that the corresponding Danish particle *vel* in interrogatives underwent a change in its procedual semantics. *Wohl* in a German interrogative like (39) indicates that the speaker does not know if the metarepresented assumption is true or false at the time of utterance. As Blass puts it, *wohl* (in declaratives) "indicates less than full evidence of mutual manifestness" (Blass, 2000: 42). *Wohl* indicates epistemic uncertainty or vacillation in declaratives and in positive-polarity interrogatives alike, but certainly no rejection of the metarepresented positive-polarity thought, in the interrogative of (39) the assumption that fresh strawberries are available on the market (see footnote 6 in 2.3). The appearance of the antithetic semantic component of *vel* seems to be due to an innovative diachronic process that took place on Scandinavian soil, a process that came to separate *vel* in interrogatives lexically from the particle *vel* in declaratives, the latter being a marker of a weak belief that the proposition expressed is true, like German *wohl* in declaratives. (39) and similar data seem to suggest that *vel* in free interrogatives may historically precede *vel* in bound interrogatives in Danish, because *wohl* does not occur in German tags.

I have come upon one piece of evidence that Norwegian interrogatives with *vel* may have undergone certain intermediate stages before its present procedural semantics was fixed. In 1886, the Norwegian poet Per Sivle (1857–1904) wrote (40) in a letter to his girlfriend Wenche Nilsen, later his wife (reproduced in a biography on Per Sivle authored by Alfred Fidjestøl, 2007). The letter has

an unmistakably Dano-Norwegian form, in spite of the fact that Sivle was a pioneer within the nationalist struggle for advancement of 'nynorsk' (New Norwegian), a resistance movement against the dominant position of the Danish language in Norwegian society.[14]

(40) [E]t "Kjærestebrev"—aldrig i Verden faar du et saadant fra mig!—Og du vil
a "love letter"—never in the-world get you a such from me!—and you will
heller ikke fordre det.—Du forstaar mig?—Vil du vel?
either not demand it—you understand me?—will you PRT?
'A "love letter"—never ever will you receive one from me!—
And you will not demand it either.—You understand me?—Will you?'

The interrogative *Vil du vel?* ('Will you?') in (40) is a request for confirmation of the negative proposition expressed in the preceding declarative *Og du vil heller ikke fordre det* ('And you will not demand it either'), in his opinion preferably stated in her next letter to him. The function of the *vel*-modified question in Sivle's letter is closely related to the way a positive-polarity tag question that contains *vel* is adjoined to a negative, declarative host: *Og du vil heller ikke fordre det, vil du vel?* ('And you will not demand it either, will you?'). The syntactically declarative polar question ('You understand me?') intervening between the writer's own demand and the follow-up request for confirmation ('Will you?') forces us to process the interrogative *Vil du vel?* not as a tag question but as a free syntactic form. There is no illocutionary twofoldness in this elliptical interrogative, no request for confirmation addressed to a direct recipient and simultaneous communication of the speaker's propositional attitude targeting an indirect recipient. *Vil du vel?* is a sincere warning: Wenche cannot expect to receive any love letters from Per, and he seems to take for granted that she will comply with his wish that they both refrain from writing love letters to one another.

If I myself were to produce an utterance of the free interrogative in (41), there would be no escape from the illocutionary duality that I associate with *vel*-modified polar interrogatives. I would need a discourse setting with an indirect 3rd person addressee whose opinion I want to rectify as well as a direct 2nd person addressee who is willing to back up my claim that the abstract-entity anaphor *det* represents a state of affairs that will not come into existence, and

14 'Nynorsk' is one of the Norwegian written standards. Sivle was an important 'nynorsk' poet in its early days.

the finite auxiliary *vil* ('will') would have to be highlighted by the focal phrase-tone H⁻ as an indicator that the information focus is restricted to the positive polarity of the interrogative.

(41) *Vil du vel det?*
will you PRT that
'Will you?' (You won't.)

What contextual premises must be activated in the mind of any person trying to make sense of the syntactic form of (41)? I posed this question to nine Norwegians, academics but not professional linguists, who had in advance told me that they are not only familiar with *vel*-modified tag questions but they also know how to use *vel*-modified free interrogatives. All of them said they would have to know who the 2nd person pronoun *du* refers to, what the pronominal complement *det* denotes, and that the speaker expects to receive a negative answer. None of them spontaneously came up with the claim made here, that legitimate use of this syntactic construction requires the presence of two kinds of addressee in the conversational setting: the 2nd person direct addressee is presupposed to share the speaker's belief and is asked to support the speaker by serving as a witness against a 3rd person addressee whose belief is in conflict with the speaker's communicated denouncement of the metarepresented propositional form. I tried to convey to each of the nine people separately what I felt to be missing in their characterizations of the contextual input conditions for appropriate use of (41), without using technical terms. Five of them said they felt my analysis was correct, one said my account was plausible, and the remaining three people felt that my proposed input constraint was too strict, implying that their idea of what is involved appears to conform more to Per Sivle's use of the interrogative *Vil du vel?* in (40), written in 1886, and less to the procedural semantics proposed in (29) in section 3.

5 Conclusion

Did the antithetic procedural semantics of *vel* in Danish and Norwegian polar interrogatives develop before or after the tag question construction with a *vel*-modified tag adjoined to a negative declarative was established? Either temporal order is imaginable. I am unable to offer any evidence that would definitely favour the answer that the *vel*-modified tag after a negative declarative host brings to that tag question construction just those semantic features of the *vel*-modified free interrogative that match the content of the negative declar-

ative to which it is attached and ignores those that do not fit the content of the declarative host. Nor can I point to any evidence that clearly supports the alternative answer that the complex input constraints encoded by the modal particle *vel* in free interrogatives are likely to have developed subsequent to the emergence of the *vel*-modified tag question construction.

What I can state with a high degree of confidence is that the procedural semantics of *vel* in free interrogatives, presented as (29) in subsection 3.1, encodes a procedural semantics which is considerably more complex than what is needed to account for *vel* in tag questions after a negative declarative host (subsection 2.3).

Still, I admit that my exploration of *vel* in free interrogatives has made me realize that not all Norwegians who are occasional or regular users of this particle associate it with as multifarious and strict contextualizing conditions as I do. In particular, while I have found that many in my own age group share with me the intuitive feeling that the presence of an indirect addressee is required in addition to the direct addressee who is asked to confirm a negative proposition that contradicts the metarepresented positive propositional form, I have come across native speakers who judge the physical presence of the person here dubbed the indirect addressee to be optional.

Given that there are still people, like myself, who feel intuitively that they can use *vel* in free interrogatives only when the conditions expressed in (29) are fulfilled, it follows that for us, this particle must be lexically distinct from the formally identical particle *vel* in positive-polarity tag questions. The only procedural meaning of the particle *vel* in tag questions is that the assumption derivable from the negative declarative host sentence depends upon information stored in the speaker's long-term memory.

One has no guarantee that the free interrogative construction with the modal particle *vel* will survive another generation. We who were kids in a medium-sized East Norwegian town in the forties and fifties found it to be a neat linguistic tool in situations where we tried to convince our peers that they were wrong about something. By and large, Norwegian kids growing up today appear to be unfamiliar with the contextualizing role of this particle in free interrogatives, and my impression is that many young people today are even unaware of its existence. They may be familiar with its presence in tags adjoined to a negative declarative, without necessarily being active users of *vel* even in tag questions. No proper sociolinguistic study of *vel* in interrogatives, free or bound ones, exists to this date. It is an indisputable fact, however, that many Norwegians who have no problem with the existence of *vel* in tag questions nevertheless frown upon data with the modal particle *vel* in free interrogatives.

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CHAPTER 10

Belief and Performativity

Alda Mari

1 Belief and Assertion

According to the influential view stemming from the work of Frege (1918), the speech act of assertion is the result of the communicative intention of making visible some internal state or thought. In Frege's view, asserting is making a belief known.[1] Language provides a handle to investigate the nature of belief, and, on the assumption that the verb *believe* (and its correspondents across languages) is the reflex of the notion of belief, the assertion of the "believe that *p*"[2] (*p* = 'it is raining') (1-a) and the assertion of *p* (1-b) would amount to one and the same act (for recent discussion, see Lauer, 2013; Howthorne et al. 2016).

(1) a. I believe that it is raining.
b. It is raining

In support of this view, the following so-called Moorean paradoxical sentences show that B*p* ('believe *p*') and A*p* ('assert *p*') are equivalent. (2-a) shows that it is impossible to assert B*p* while denying the assertion that *p*. (2-b) shows that it is impossible to assert *p*, while denying B*p*.

(2) a. I believe that it rains, #but it does not rain.
b. It rains, #but I do not believe that it rains.

This first set of data would show that belief statements and bare assertion have a comparable strength and that belief statements are as 'strong' as assertions, indicating full commitment to the truthfulness of the prejacent.

On the other hand, the minimal pair in (3) shows that belief, as *per* its lexicalization *believe*, is weaker than bare assertion, given the possibility of the 'I am not certain' continuation with the latter only (Hawthorne et al. 2016). If B*p*

1 We use small caps for notions (e.g. BELIEF), capital letters for cross-linguistic expressions (e.g. BELIEF), and italics for expressions in a given language (e.g. *credere*).

2 *p* is called the prejacent when embedded under a modal element—a modal verb or an attitude.

and *p* were of a comparable force, they would both be incompatible with the not-C*p* continuation (where not-C*p* is 'I am not certain that *p*').

(3) a. It is raining, #but I am not certain that it is raining.
b. I believe that it is raining, but I am not certain that it is raining.

The question thus arises of whether belief statements are strong as or weaker than assertion and what this tell us about belief more generally.[3]

This paper adds new elements to the debate from the standpoint of language, grounding the discussion in the lexicalizations belief and specifically by considering mood choice in languages that allow both indicative and subjunctive under BELIEVE-predicates. It thus tackles the question of the strength of belief by considering different cross-linguistic lexicalizations of this concept.

Cross-linguistically, the literature has traditionally adopted the Hintikkean semantics according to which BELIEVE predicates reveal 'credence' or full epistemic commitment to the truthfulness of prejacent (a.o. Farkas, 1985,2003; Giannakidou, 1999; Villalta, 2008; Anand and Hacquard 2013; Gosselin, 2015, 2016).

(4) Hintikka semantics for *believe*:
All worlds in the doxastic space of the attitude holder are *p* worlds.[2]

By uttering 'I believe that it is raining', the speaker signals in all worlds that are compatible with the mental state it is raining, and in this way, *believe* expresses certainty in *p*. The set of worlds compatible with what the speaker believes is homogeneous and homogeneity in a belief state reveals certainty.

According to most of the theoreticians of mood (a.o. Farkas, 1985,2003; Giannakidou, 1999; Homer, 2007; Villalta, 2008; Anand and Hacquard 2013; Port-

3 Let us note right from the bat that posing the question in these terms might be somehow misleading. Indeed, it is unclear that knowledge and belief are norms for assertion. It is a daily habit to assert without fully believing *p* let alone without knowing *p*. When the question is posed of how strong belief is in comparison with the bare assertion, the theoretician has in mind the idealized assertions justified by full belief and, most importantly sincere, conceiving it as the most reliable manifestation of the speaker's epistemic state. In this respect, the bare assertion establishes the norm of strength, by setting the highest possible standard of commitment to the truthfulness of the prejacent on behalf of the assertor. While this is certainly a simplification, it is a simplification that allows us to dig a bit deeper in the semantics of the belief and to tease out some important differences between BELIEF and assertion which we will be more at ease to refine once we have established a clear framework to compare them based on empirical evidence.

ner and Rubinstein, 2013; Gosselin, 2015,2016), the subjunctive is triggered by uncertainty. Uncertainty is conceived as a partitioning in the mental state, or, in terms of possible worlds, as a partition in the set of worlds compatible with what the speaker believes.

Since the Hintikkean doxastic space is homogeneous, BELIEVE-predicates are considered to be indicative selectors across languages. Italian, however, licenses both subjunctive and indicative under *credere* (*believe*)—with an overwhelming preference for the subjunctive.

(5) *Paolo crede che Maria sia/è incinta.*
Paolo believes that Mary be.SUBJ.3SG/IND.3SG pregnant
'Paolo believes that Mary is pregnant.'

We consider mood shift as key entry into the semantics of expressions of belief, which allows us to see a distinction between *private* and *public attitudes*. Private attitudes are such that the content is not deemed to become common ground. Public attitudes are such that the content of the attitude can become common ground.

While the distinction between private and public beliefs is not new (see most notably Gunlogson, 2001), the novelty here is that the BELIEF verbs are equipped with update instructions that make them akin to speech acts. In this way, we revisit the dichotomous Hamblin distinction (Hamblin, 1960) between public and private commitments as introduced by speech acts and attitudes respectively.[4]

We thereby also propose a new distinction between two different types of belief statements as fulfilling different discourse functions (adding or not preference for *p* in the common ground).[5]

Finally, we argue that the concept belief has a variety of possible lexicalizations, and ultimately it can be itself polymorphic in such a way that seemingly contradictory moorean paradoxes can arise.

The paper contains three main sections discussing the data (section 2), presenting the analysis (section 3) and deriving the predictions (section 3). Section 4 concludes.

4 Our goal here is not to provide a theory of mood choice, and mood is only instrumental to revealing a distinction between two different types of BELIEFS.

5 On the private/public distinction, see Mari and Portner 2021.

2 The Solipsistic—Inquisitive Distinction: Data

In Italian, the use of the subjunctive is pervasive with non-factive epistemic attitudes, escaping a well-established cross-linguistic generalization according to which belief predicates trigger the indicative (Farkas, 1985;2003 Giannakidou 1999; Farkas 2003; Villata, 2008; Anand and Hacquard, 2013; Gosselin, 2015,2016; see for pragmatic account of Italian subjunctive with belief predicates, Quer, 1998; Farkas, 2003; Schlenker, 2007; Portner and Rubinstein, 2013).

(6) a. *Paolo crede che Maria sia arrivata.*
Paolo believes that Maria be.SUBJ.3SG arrived
'Paolo believes that Mary has arrived.'

b. *Paolo pensa che Maria sia arrivata.*
Paolo thinks that Maria be.SUBJ.3SG arrived

One straightforward explanation would posit that belief in Italian conveys uncertainty, and that *credere* would mean 'I believe but I am not sure' (see Rhis, 2013). The 'I am not sure' could be argued to be an implicature, and indeed Homer (2007) has proposed an account along these lines. This proposal, however, stumbles on mood distributions with predicates of certainty as shown in (7).

(7) a. *Giovanna è sicura che Maria sia incinta.*
Giovanna is certain that Maria be.SUBJ.3SG pregnant
'Joanne is certain that Mary is pregnant.'

b. *Giovanna è convinta che Maria sia incinta.*
Giovanna is convinced that Maria be.SUBJ.3SG pregnant
'Joanne is convinced that Mary is pregnant.'

To establish the distinction between private and public belief, we propose a detour through fictional attitudes, which provide a useful handle to understand the possible meanings and uses of BELIEVE-predicates.

2.1 *Private and Public Fictional Predicates*

Fictional attitudes like DREAM, IMAGINE are consensually described as selecting the indicative (e.g. Giorgi and Pianesi, 1996; Giannakidou, 1999; Farkas, 2003). They are claimed to trigger a homogeneous modal base, consisting of *p*-dreaming/imagining worlds. The usual semantics mimics the semantics for

Hintikka belief, and most if not all theoreticians of mood would agree on the following analysis in (8) (Giannakidou, 1998).

(8) Fictional attitudes.
All worlds in the fictional modal base of the attitude holder are *p* worlds.

Unexpectedly, fictional predicates can also license the subjunctive in Italian (see Mari, 2016; Giannaidou and Mari, 2021, Mari and Portner, 2021).

(9) *Immagino che Maria sia incinta oramai.*
Imagine.IND.1SG that Mary be.SUBJ.3SG pregnant by-now.
'I imagine that Mary is pregnant by-now.'

The use of the subjunctive can trigger a conjectural interpretation and in this case, the sentence states that the speaker does not know whether *p* is true, but she is reporting that in worlds that are compatible with what she knows and which comply with her imagination, Mary is pregnant. One important feature of (9) is that whether Mary is pregnant or not can be known and settled as true or false in the common ground. This leads to set the following distinction.

(10) Solipsistic and inquisitive-IMAGINE (adapted from Mari, 2016).
a. Solipsistic-IMAGINE-sentences are true if and only if
in all worlds compatible with the mental state of the assessor *p* is true.
b. Inquisitive-IMAGINE-sentences are true if and only if
p can be known
the assessor *does not know* whether *p* is true and
in all worlds compatible with the mental state of the assessor *p* is true.

Generalizing cross-linguistically, and submitting that the verb *imagine* in English shares these two interpretations with the Italian *immaginare*, at a first approximation, it would be plausible to pose two different truth conditions for IMAGINE-sentences, which Mari (2016) distinguishes as solipsistic-IMAGINE-sentences and inquisitive-IMAGINE-sentences. As with inquisitive-IMAGINE, truthfulness of *p* matters. With pure imagination (solipsistic-IMAGINE), it does not. For an in depth analysis on the solipsistic and suppositional distinction, see Giannakidou and Mari (2021).[6] With this distinction in mind, we now turn to *credere* (*believe*).

6 For an in depth analysis on the solipsistic and suppositional distinction, see Giannakidou and Mari (2021).

2.2 *BELIEVE: Solipsistic and Inquisitive Distinction*

Mari 2016 (see, since the writing of this paper, recent developments in Giannakidou and Mari 2021) proposes that there is a parallel difference between an solipsistic-*credere* as an indicative selector in Italian and an inquisitive-*credere* as a subjunctive selector. Solipsistic-*credere* sentences report an internal, solipsistic state (a credence) and that inquisitive-*credere* sentences report hypothesis about the truthiness of *p* (a conjecture) of the attitude holder.

We now show that solipsistic-belief and inquisitive-belief differ in one important respect. Solipsistic-belief is blind to the *knowability* of *p* (i.e. it does not require that *p* be knowable), it is a pure expression of credence considered as a solipsistic thought. Inquistive-*belief* requires that *p* be *knowable* in the context of utterance and conveys lack of knowledge about the truthfulness of *p* (see Giannakidou and Mari 2021). To highlight the 'knowability' constraint on the use of inquistive-*belief*, we consider two contexts, in which *p* is not settled and cannot be known. These two contexts are futurity and predicates of personal taste. If our hypothesis that the subjunctive deals with finding and establishing the truthfulness of *p*, specific accommodations are needed in order for the subjunctive to be operational in these two contexts.

2.2.1 Subjunctive and Futurity

The non-deterministic view of future represents past and present as settled and the future as open (e.g. Thomason, 1998; Copley, 2002; Kaufmann, 2005; Mari, 2015; Giannakidou and Mari, 2018). As a consequence, if p is evaluated at a time that follows the time at which the attitude holds, it cannot be assigned a truth value (see McFarlane, 2005), and cannot be known (see Giannakidou and Mari 2018a for a recent discussion). The deterministic view of future represents future just as determined as settled as past and present but acknowledges that the future cannot be known. The future, under any theory is un-knowable.

By accommodating plans and decisions, *p* can be 'known' relative to those plans and decisions at the time at which the attitude holds (for simplicity we will from now on assume that this is the time of utterance) (see Copley, 2002). For instance, the sentence *I will go to the party tonight* is true now if and only if in all worlds that comply with my plans I go to the party tonight. Likewise, the truthfulness of *p* can already be assessed at the time of utterance if the assessor has a sufficiently reliable body of evidence (Giannakidou and Mari, 2018). *p*, in that case, will be true relative to the epistemic modal base of the assessor.

We see in (11) that the subjunctive can be used unproblematically in a context where the time of evaluation of *p* is in the future. Consider the following scenario. We are organizing a party and John is invited. Usually John does not come to parties, however, he is very much in love with Mary and Mary is coming for sure.

(11) *Crede che venga anche Gianni questa volta.* (Mari 2016)
Believes that come.SUBJ.3SG also Gianni this time.
'She believes that John is coming too this time.'

In some other contexts, though, the subjunctive is infelicitous. Consider the following minimal pair. My son has a tendency to forget stuff at school. My husband wants to buy him an expensive scarf and asks me whether it is a good idea, or whether I believe that he will lose it.

(12) a. *Credo che la perderà.* (Mari, 2016)
Believe.PRES.1SG that that lose.FUT.IND.3SG
'I believe that he will lose it.'

b. *Credo che la perda.*
Believe.PRES.1SG that that lose. SUBJ.3SG
'I believe that he will lose it.'

In (12) the indicative is the only possible choice. The following contrast also reveals that the subjunctive can be used only in those contexts where *p* can be assigned a truth value at the time at which the attitude holds. Specifically, the truthfulness/falsity of *p* in (13-a) can be assessed relatively to a plan (those of the Olympics committee). The truthfulness of *p* cannot instead be assessed at the time of utterance in (13-b), if not by an expert (or anyone considering himself an expert) with knowledge sufficient to assess the truthfulness of *p* at the time of utterance. (The examples (13a/b) are from Mari (2016). In very recent work, Mari and Portner 2021 propose several other tests to establish the distinction between two types of belief statements.)

(13) a. *Crede che le Olimpiadi si svolgano a Tokyo.*
Believes that the Olympics REFL take place.SUBJ.3PL in Tokyo
'She believes that the Olympics will take place in Tokyo.'

b. (#)*Crede che la Francia perda questa sera.*
Believes that the France lose.SUBJ.3SG this night
'She believes that France will lose, tonight.'

Our conclusion will thus be that, if *p* is not knowable, subjunctive with *credere* is less felicitous.

2.2.2 Subjunctive and Predicates of Personal Taste

Across the variety of theories for predicates of personal taste *P*, theoreticians agree that there is no fact of the matter about *P* (see in particular discussion in Lasersohn, 1995; Stephenson, 2007). When uttering (14), truth cannot be assessed *simpliciter* relative to the circumstances. There is no 'fact of the matter' of the soup being or not being tasty, and, once again, in this respect, *p* cannot be known.

(14) The soup is tasty.

As with futurity is it possible to accommodate some form of 'objectivity' (see Mari 2016). In particular, some criteria can be adopted for assessing the truthfulness of *p* that the participant can share. These criteria will help them to together establish, in the common ground, whether *p* is true or false. A group of friends is looking for a restaurant. One of them suggests:

(15) a. *Andiamo lì, credo che è buono.*
Go.IMP.1SG there believe.IND.1SG that be.IND.3SG good
'Let's go there, I believe it is good.'

b. *Andiamo lì, credo che sia buono.*
Go.IMP.1SG there believe.IND.1SG that be.SUBJ.3SG good
'Let's go there! I believe it is good!'

The statements in (15-a) and (15-b) rely on different types of evidence. By choosing the indicative the speaker indicates that his judgment relies on some internal perception (he has already eaten at that restaurant, he likes how it looks like, …). The evaluation is subjective in a proper way, based on some visual experience or an experience of taste. This type of subjective judgment is incommensurate with one that could be expressed by other speakers.[7] In choosing the subjunctive the speaker signals instead that he is relying on some external evidence (15-b), that he has heard or read about the restaurant. In this

7 The debate on faultless disagreement was born with Aristotle and is still very active, in particular in the philosophical literature, which strives to account for the sources of subjectivity. It would be impossible to propose here a list of relevant works. The linguistic literature, instead, has mostly considered predicates of personal taste from the perspective of the evidential underpinnings of the subjective judgments, and the incommensurability of the evidential experience is an appealing notion, to which we would be willing to subscribe. However, regardless of what the explanation of the subjectivity might be, what matters for our demonstration here is that predicates of personal taste appeal to a notion of truth which cannot be 'objective', unless objectivity is overtly accommodated.

case, some other source of knowledge, a more reliable one, is accommodated. *p* can be 'known' relative to this body of knowledge and, relative to this type of evidence, the evaluations of the participants are commensurable with each other.

Note that the choice of the first person here is not random. The idea guiding our interpretation of indicative-*credere* is that it is akin to exclamatives, whereby a personal appreciation is being put forward (see e.g. Castroviejo, to appear, for an overview). Given the inscrutability of third person personal appreciation, third person examples are less revealing of the distinctions that we are attempting to settle here.[8]

3 Analysis

Our analysis will articulate a semantic and a pragmatic dimension around the update instruction of the attitudes. Along with Mari (2017), we distinguish private and public attitudes and argue that, when public, the attitudes instruct to update the negotiation space with the semantic content of the attitude. This allows us to establish a distinction between two different types of BELIEVE-statements fulfilling two different types of discourse functions, one of which only consists in proposing *p* for uptake. In this framework we will be able to understand the similarities and differences between BELIEVE-statements and bare assertions.

3.1 *The Semantics of Solispsistic and Inquisitive Belief*

Following Mari (2016), we posit a difference between two types of BELIEFS in the semantics. According to Mari (ibid.) and Giannakidou and Mari (2021), two solipsistic-BELIEF and inquisitive-BELIEF correspond to two different interpretations of BELIEF. By resorting to the standard tools in the analysis of mood, the difference would result in positing a doxastic space (or modal base) for the solipsistic-belief and a supplementary epistemic space (or modal base) for the inquisitive belief. Solipsistic belief would be a one layer belief (doxa only) conveying doxastic certainty, inquisitive belief would disentangle knowledge and doxa and convey lack of knowledge but doxastic certainty[9].

8 For experimental data on predicates of personal taste with belief predicates, see Bourgeois-Gironde, Mari, Nicolas and Blunier (2019).

9 For further developments on this, see Giannakidou and Mari (2021).

(16) Solipsistic and inquisitive-*credere*. **To be completed.**
a. Solipsistic-BELIEVE.
All doxastic worlds are *p* worlds.
b. Inquisitive/conjectural-BELIEVE.
Presupposes that *p* is knowable.
The attitude holder does not know whether *p* is true.
All doxastic worlds are *p* worlds.

The semantics of inquisitive-belief thus codes (i) knowability of *p*[10] and (ii) lack of knowledge besides (iii) signalling that the doxastic worlds of the attitude holder are all *p* worlds. This accounts for the fact that subjunctive-belief is used in contexts where the interlocutors are striving to settle truthfulness of *p*. Knowledge thus matters, and not only the individual credences.

3.2 *The Pragmatics and the Update Instructions of Epistemic Attitudes*

3.2.1 Articulating Public and Private Commitments

Moving to consideration of how knowledge is interactively built in conversations (Stalnaker, 1978; Roberts, 1996/2012), we submit that conjectural belief is chosen to raise a question, and thus revisit the meaning of attitudes—and BELIEVE in particular—, considering their contribution in attempting to update the common ground *C* and more precisely, as we now argue, the negotiation space *N*.

We claim that *representational*/*epistemic* attitudes can contribute to both the private and the public (modal) spaces because, unlike pure bouletics,[11] they are sensitive to the knowability of *p*, and thus to the possibility of establishing truth.

Both old and much recent work on speech acts has proposed fruitful revisitations of the notion of common ground, and, more broadly, of doxastic spaces (see e.g. Hamblin, 1970; Clark and Schaefer 1989; Frakas and Bruce, 2010; Ginzburg, 2011; Krifka, 2015). In particular, they have overcome the Stalnakerian view according to which the common ground shrinks as conversations unfold. According to Stalanker, each assertion of *p* eliminates non-*p* worlds, with conversations pursuing the goal of narrowing down the common ground to the actual world, thus establishing truth.

Several theoreticians now conceive the common ground as a space where issues or questions are solved (Roberts, 1996/2012) and proposals are made.

10 For further developments on "knowability", see Giannakidou and Mari in press.

11 It is a well-known fact that there are mixed cases of bouletic-epistemic predicates, like *hope*. These predicates also have a public use, which we do not discuss here.

With Farkas and Bruce (ibid.) we assume that for any given conversation, three spaces must be distinguished: a private space *s*, keeping track of the private beliefs, and a negotiation space *N*, which is a public space where proposals are made or questions are asked, and finally the common ground *C*, where ratified and mutually accepted propositions are stacked.

Negotiation spaces are supersets of common grounds (see also Portner, 2007). According to Farkas and Bruce (2010:88), assertions (by adding *p* to *N*) project a future *C* that includes the asserted proposition, whereas a question (by adding at least two alternatives to *N*) projects a set of *C*s, each containing only one of the possible answers to the question. This is a feature that we will maintain in our account, where negotiation spaces rather than the common grounds will play a role (in order to be added to the common ground dialogical moves are needed. For assertion, this dialogical move is ratification (which can amount to lack of objection); for questions, even biased, an answer from the addressee is needed; see discussion in Farkas and Bruce, 2010).

Our account considers the private and the public space as independent from each other.[12] Overall, different interpretations of belief statements reveal different articulations between *s* and *N*. The possibility of privately committing without publicly committing (or only partially publicly committing, i.e. the addition of both *p* and not-*p* to *N*) gives a handle to disentangle assertion and belief and makes a new case, besides lies, to separate the public and the private spheres of belief as not mutually entailing.

3.2.2 Public and Private Attitudes

Based on the distinction that Italian allowed us to draw, we assume that attitudes divide in two classes according to whether they are public or private.

Public attitudes are such that if *p* is true, *p* becomes necessarily common ground and is believed by all participants. As for belief, if subsequent to the utterance 'I believe that John is arriving', John arrives, the prejacent *p* = 'John arrives' becomes common ground and is believed by all the participants in the conversation. Instead, for private attitudes even if *p* becomes true, it is not

12 To shed some light on the difference between (1-a) and (1-b) we will abandon two generally held assumptions. The first assumption that we abandon is that *N* and *C* are subsets of the private space *s* of (or doxastic commitments, see Farkas and Bruce 2010:86). With no further specifications, on this assumption, one cannot account for the fact that a belief is consistently held privately, without being held publicly. Let us assume that (1-a) states that *p* is decided in *s* (i.e it follows from *s*; e.g. Farkas, 1982,2003; Anand and Hacquard, 2015; Giannakidou 2016). If *N* is a subset of *s*, then *p* is also added to *N*. Moreover, for sincere assertions it is also assumed, as per Grice, that if *p* is decided in *N*, then *p* is decided in *s* (see the 'perspective' section below). We also abandon this assumption.

TABLE 10.1 Want

Want	**Attitude**	**Update**
Semantics	p > non-p	
Pragmatic	Attitude type: Private	Adds p > non-p to s

necessarily endorsed by all participants. If one utters 'I want an ice-cream' and then buys himself an ice-cream, it does not follow that the other participants are in a state of wanting an ice-cream.

Prior to the verification of the truth of the prejacent, we claim that, with public attitudes, p is presented for uptake. With private attitudes, it is not. More generally for attitudes the following distinction is established:

(17) Private and Public attitudes.
   a. PRIVATE attitudes: p is not for uptake
   b. PUBLIC attitudes: p is for uptake

One given attitude type, e.g. BELIEVE-predicates, can have different realizations both as private and as public. Italian *credere* is one such attitude.

Our new claim here is that attitudes have update instructions, just like assertions or imperatives.

Our understanding of the solipsistic-conjectural distinction for *credere* is thus as follows:

(18) Solipsistic and Inquisitive-BELIEVE. **Final**.
   a. Solipsistic -BELIEVE
   All worlds in the doxastic space s of the attitude holder are p worlds (= Hintikka belief)
   b. Inquisitive-BELIEVE.
   All worlds in the doxastic space s of the attitude holder are p worlds (= Hintikka belief) & the attitude holder does not know whether p is true
   UPDATE INSTRUCTION: PRESENT p, where PRESENT is as in (19).

(19) PRESENT: update the negotiation space N with p > not-p

In a context where participants strive to build a consensus around p, either p or its negation has to make it into the common ground. Since the attitude holder does not know whether p is true, s/he is not in a position of adding p itself in the negotiation space. Instead, s/he can only add a preference for p.

TABLE 10.2 Solipsistic belief

Solipsistic belief	**Attitude**	**Update**
Semantics	*p*	
Pragmatic	Attitude type: Private	Adds *p* to *s*

TABLE 10.3 Inquisitive belief

Inquisitive belief	**Attitude**	**Update**
Semantics	Layer 1: Presupposition: *p* & not-*p* (lack of knowledge) Layer 2: Assertion: *p* (personal belief)	
Pragmatic	Attitude type: Public	Adds *p* > non-*p* to *N*

Let us illustrate the proposal and start with WANT, a private attitude. Since there is no instruction to update the negotiation space, the private space is updated.

As for solipsistic-BELIEF, we have argued that the truthfulness of *p* does not matter, and, in this case, the predicate expresses a mere credence of the attitude holders. As we noted, expressions of credence in the indicative are typically used in prayers. This is explained by the textual genre: prayers express a personal credence, and their content is not there for an uptake.[13]

(20) *Io credo che esiste Dio.*
I believe.IND.1SG that exists God
'I believe that God exists.' (https://www.chiesavaldesetrapani.com/)

The attitude gives no instruction to update the negotiation space, and, as a consequence, the private space is updated.

Inquisitive-BELIEVE proposes *p* for an uptake; this is signaled by the update instruction associated with the public attitude, PRESENT, which urges an

13 For recent developments on this, see Mari and Portner 2021.

TABLE 10.4 Public and private dimensions of the attitudes

Attitude	Private space *s*	Negotiation space *N*	Common ground *C*
want	*p* > non-*p*		
belief (private)	*p*		
belief (public)	*p*	*p* > non-*p*	

update to the negotiation space with a preference for *p*. Unlike the bare assertion, inquisitive-BELIEVE conveys that the speaker is not confident enough to just add *p* to *N*. In other terms, she is not fully committed to *p* publicly.

Note that the attitude holder (which in the first person is the speaker) is fully committed to *p* privately.

Inquisitive-belief, unlike private belief, is used informatively, as we discuss more at length in section 4.1.

3.3 *Extension to* Immaginare

As we have noted in section 2.1, *immaginare* and *credere* follow the same pattern. Recalling here the examples, we see that the use of the subjunctive can enhance a reading that we can classify as 'inquisitive', that it is to say, it conveys a conjecture about an actual state of affairs.

(21) *Immagino che tu sia arrivato in ritardo.*
Imagine.PRES.1SG that you be.SUBJ.3SG arrived.SUBJ.3SG in late
'I imagine that you were late.'

To obtain the pure imagination reading, the indicative can be used (the indicative cannot be used to convey a conjecture, instead). For completeness, we have to mention that the subjunctive can also be used with a non-conjectural reading. Interestingly, in this case, the sentence has a tendency to describe a 'pretend' situation (22), where the attitude holder is not simply imagining, but she is behaving as in a *pretend* game, with a pretend *N*.[14]

(22) *Immaginava che il suo letto fosse un' automobile.*
Imagine.IMPF.3SG that the his bed be.SUBJ.3SG a car.
'He was imagining/pretending that his bed were a car.'

14 We thank Ivano Ciardelli for this example. For further delopments on this idea, see Mari and Portner 2021.

As for the starting contrast between indicative-*immaginare* and subjunctive-*immaginare*, and generalizing from there, we can see that the pattern emerged for belief replicates here.

(23) Solipsistic -IMAGINE.
All worlds in the imagination space are worlds in which the prejacent is true. There is no update instruction, requesting to update the negotiation space.

(24) Inquisitive-IMAGINE.
p is knowable
All worlds in the imagination space are worlds in which the prejacent is true.
The speaker does not know whether *p* is true in the actual situation.
UPDATE INSTRUCTION: PRESENT *p*.

4 Belief and Assertion: Back to the Initial Puzzles

With this distinction between private and public belief, we are now ready to reconsider the initial puzzles in a new perspective, which considers attitudes not only as expressing private commitments as *per* Hamblin, but also public commitments. By featuring a PRESENT update instruction, and insofar as they manipulate public spaces, public attitudes enter in a complementary distribution with the bare assertion. On the assumption that the illocutionary makeup of a bare assertion is as in (25), we propose that the illocutionary makeup of a belief sentence is as in (26).

(25) Bare assertion of *p*.
ASSERT *p*

With the bare assertion, *p* is added to *N*

(26) ASSERT John believes-PRESENT *p*

While the higher ASSERT in (26) updates *N* with the proposition [believe *p*], PRESENT is in charge of requesting an update of *N*. When an inquisitive-belief sentence is chosen rather than the bare assertion, a signal is given that *N* must be updated with a *preference* for *p* revealing partial commitment to *p*.

Table 10.5 summarizes the results.

TABLE 10.5 Comparison between bare assertion and belief statements

Attitude	***s***	***N***	***C***
solipsistic belief	*p*		
inquisitive belief	*p*	*p* > non-*p*	
bare assertion	*p*	*p*	
lie	non-*p*	*p*	

Both solipsistic-BELIEF and inquisitive-BELIEF are weaker than assertion when it comes to the negotiation space. Solipsistic-BELIEF does not even request to update that space, and inquisitive-BELIEF requests to update it with a preference for *p* rather than with *p* itself.

Considering the contribution to *N*, we thus see that solipsistic-BELIEF and inquisitive-BELIEF differ in informativity. We define informativity as the addition to *N* at least as strong as a preference for *p*.

(27) **Informativity scale**.
When added to N: *p* >> [*p* > non-*p*] >> [*p* or non-*p*]

(28) **Informativity**. An utterance is informative if it adds at least a preference for *p* in the negotiation space *N*.

Solipsistic-BELIEF is not informative, as it adds nothing to *N*. Inquisitive-BELIEF, on the other hand, is informative, as it adds a preference for *p* in *N*.

Comparing now bare assertions and belief statements, we can now account for the paradoxes observed in section 1.

As the table illustrates, there is a variety of combinations of private and public commitments to the truthfulness of *p*. With solipsistic belief, the speaker is only privately, but not publicly committed. With inquisitive/public belief, the speaker is fully privately committed but only partially publicly committed. With sincere bare assertions, he is both privately and publicly fully committed to *p*. With lies she/he is only publicly fully committed.

We can now see that BELIEVE-statements differ from sincere assertions not in the private dimension but in the public one. The fact that there is no difference between belief statements and assertions in the private dimension explains why belief statements and assertions seem to be mutually entailing, as the data in (2-a)–(2-b)—recalled in (29-a)–(29-b)—reveal.

(29) a. I believe that it rains, \#but it does not rain.
b. It rains, \#but I do not believe that it rains.

However, we have also noted in line with the literature that belief statements seem to be weaker than assertions, as the contrast between (3-a)–(3-b) repeated here in (30-a)–(30-b) reveals.

(30) a. It is raining, #but I am not certain that it is raining.
b. I believe that it is raining, but I am not certain that it is raining.

Assertion and BELIEVE statements differ in their public commitments: while both rely on a full private commitment, with BELIEVE statements the speaker signals that s/he is not ready to (fully) publicly commit.

5 Conclusion

This paper had the goal of bringing new elements to the debate about the intricacies between belief statements and assertions, a very live debate in philosophy, to which we believe that linguistics can fruitfully contribute. Indeed, we have observed that belief predicates come in two sorts: as private and as public attitudes, and that languages that feature mood choice allow us to see this distinction clearly. From a semantic and, more broadly, a conceptual perspective, languages that do not feature mood choice can also feature these two interpretations; however, they are hardly visible in the absence of grammatical marking.

If our analysis is on the right track, it is possible to tease apart two categories of attitudes, those whereby the speaker intends to contribute to finding truth and those whereby the speaker intends to make her state of mind known. The first are public attitudes, the second private ones. We have used the 'uptake' criterion: only those attitudes that present p for uptake are public. Attitudes that present p for uptake are such that, if p is true, then p becomes common ground. In order to be so, p must be knowable (must be such that a truth value can be assigned to it, in the context of utterance) and only epistemic attitudes can be public, granted absence of future orientation and absence of judgments of personal preference which cannot be verified as true or false objectively in the context of utterance.

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CHAPTER 11

Post-modal Concessive Meanings: A Contrastive Corpus Study of French and German Modal Verbs

Corinne Rossari and Elena Smirnova

1 Introduction

This paper aims at characterizing the modal meanings of French and German modal verbs by looking at their textual argumentative environments. Our idea is that the argumentative patterns in which a modal form occurs have an impact on the values that the forms can endorse. On the other hand, the basic meaning of a modal form constrains the argumentative patterns in which it can occur.

In previous studies (Rossari 2018, Rossari et al. 2018), we have investigated the relationship between French and Italian modal expressions and the argumentative pattern with the adversative connectors fr. *mais* and it. *ma*. Using the newspaper corpus data from 21th century, we have seen that modal forms with the basic meaning of necessity (NEC) tend to behave differently from modal forms with the basic meaning of possibility (POS). More specifically, some of POS forms display a statistically highly significant attraction to *mais*/*ma*, whereas this is not the case for NEC forms (Rossari et al. 2016, Rossari 2018, 2019, Rossari et al. 2018). This is particularly intriguing because the non-attraction of NEC forms cannot be accounted for in terms of grammatical, semantic or pragmatic incompatibility. In the literature, it has been pointed out that NEC and POS forms can convey epistemic values in inferential contexts (Kronning 1990, 1996, Dendale 1994, Vetters 2012), cf. (1)–(2):

(1) Marie **doit** être fatiguée après ses examens, il vaut mieux ne pas la déranger.
'Mary must be tired after her exams, it is better not to disturb her.'

(2) Paul **peut** être fatigué après ses examens, il vaut mieux ne pas le déranger.
'Paul may be tired after his exams, so it is better not to disturb him.'

It has also been noticed (see e.g. Vetters 2012) that some modal expressions display so-called "post-modal" values, as e.g. in (3)–(4). In this case, the form no

longer seems to express the value associated with its basic modal meaning, in this case POS, but has concessive reading.

(3) Je suis **peut-être** une femme, mais … =/= il est possible que je sois une femme, mais …
'Maybe I am a woman, but … =/= it is possible that I am a woman, but …'

(4) Je **peux** être un homme, mais … =/= il est possible que je sois un homme, mais …
'Maybe I am a man, but … =/= it is possible that I am a man, but …'

The difference between (1) and (2) has been usually accounted for in terms of the strength of inference (Dendale 2000, Desclés & Guentchéva 2001). According to Tasmowski and Dendale (1994), *pouvoir* can be used when several possibilities are at stake, whereas *devoir* selects only one possibility as the most probable due to the reasoning of the speaker (see Dendale & De Mulder 1996, Desclés & Guentchéva 2001). Post-modal uses as in (3) and (4) are usually treated as cases of pragmaticalisation (Vetters 2012), or as polyphonic variants (Nølke 1988, 2014). However, no explanation has been presented so far for the fact that only *pouvoir* and *peut-être*, and not *devoir*, display such post-modal uses.

Things get more complicated when modal verbs are used in the conditional mood. Dendale (2000) examines the effect of the conditional marking of inferential *devoir* and argues that it does not affect the inferential interpretation of the verb; instead, it weakens the degree of certainty of the conclusion. In our previous research (Rossari et al. 2018), we have analysed it. *dovere* and fr. *devoir* and demonstrated that the conditional marking does not show the same effect in both languages, especially if the argumentative patterns and contextual environment of the modal expressions are taken into account. The purpose of this paper is to elaborate further on the theoretical framework that models different uses of modal expressions with POS and NEC values, focusing on French and German.

The paper is structured as follows: Section 2 introduces our model of modal meanings and its general application to French and German modal verbs. Section 3 formulates the hypotheses of the present study. In Section 4, we briefly describe the data and method of the corpus study. Section 5 discusses the results of our corpus study, and Section 6 concludes.

P1. The *core semantics* (CS) of the *modal form* (MF)

P2. The *semantic object* (SO) to which the CS applies:
proposition (P)
enunciation of proposition (EP)

if CS can be applied to EP =>
P3. The particular value resulting from the application of CS to EP,
which is triggered by a *rhetorical purpose* (RhP)
CS = NEC: the speaker wants to strongly support the statement
CS = POS: the speaker does not want to strongly support the statement

FIGURE 11.1 General three-layer model of modal meanings

2 A Unified Approach to Modal Meanings

2.1 *The General Three-Layer Model of Modal Meanings*

Our model consists basically of three parameters which are used to represent the contribution of the modal form to the utterance in which it occurs.

With these three layers, our model accounts for different values a modal form can convey in different contexts of use. The set of parameters P1 and P2 is conventional. Each form conveys a particular CS which may be applied to P and/or EP. P3 is relevant only if the MF can apply to EP. If the CS is POS, the RhP involves a weak endorsement by the speaker, if the CS is NEC, the RhP involves a strong endorsement by the speaker. Strong endorsement often results in a conjectural interpretation as in (5); weak endorsement may result either in a concessive interpretation (6) or in an interpretation where the speaker takes a dismissive attitude towards the proposition (7).

(5) Avec tout ce qu'il a bu il **doit** être saoul, ??mais j'en sais rien.
'With all he has drunk, he must be drunk by now, ?? but I don't know.'

(6) Je **peux** être une femme, mais je sais m'imposer.
'Maybe I am a woman, but I know how to impose myself.'

(7) Je **pourrais** le faire mais il vaut mieux ne pas faire appel à moi.
'I could do it, but it's better not to ask me.'

2.2 *French* pouvoir *and* devoir

As mentioned above, *pouvoir* can occur in concessive contexts, whereas *devoir* cannot. It can only occur in strong endorsement contexts.

(8) Je **peux** être une femme, mais …
'Maybe I am a woman, but …'

(9) *Je **dois** être une femme, mais …
'I must be a woman, but …'

(10) Avec tout ce qu'il a bu, il **doit** être saoul (= il est forcément saoul).
'With all he has drunk, he must be drunk by now (= he is certainly drunk).'

We argue that this difference may be accounted for in terms of the application of the third parameter P3 of our model presented above. *Pouvoir* conveys a basic meaning of POS, which can apply to P or to EP. When it applies to EP, the CS is still active and *pouvoir* indicates that the utterance of the proposition is possible (= POS). This is to say that the speaker makes a statement, but at the same time, s/he indicates that s/he does not completely endorse it, as the realization of the utterance is only *possible*. These mode of employment of the modal verb is analogous to the rhetorical figure where the speaker explicitly utters that s/he is not saying it, but at the same time, s/he is saying it, as in the following sentence:

(11) Je ne dis pas que Paul est stupide.
'I'm not saying that Paul is stupid.'

By means of *pouvoir*, the speaker marks her/his utterance as possible, and this allows for an interpretation where the speaker distances her/himself from the statement, meaning that it should be put in the background of the discourse flow. We can rephrase (8) as follows:

(12) Je **peux** être une femme, mais …
"what really matters is not that I am a woman or not, as it can be assessed as incompatible with my capacity of doing this or that, but that I can do this or that"

On the other hand, the CS of *devoir* is NEC. If it is applied to EP, it indicates that the utterance of a statement is necessary (= NEC). This indication is incompatible with an interpretation where the speaker distances her/himself from the

P1. The *core semantics* CS of the *modal form* MF = **POS**

P2. The *semantic object* (SO) to which **POS** applies
proposition POS(P) => possibility, capacity, permission
enunciation of proposition POS(EP)

if **POS** is applied to EP =>
P3. The particular value resulting from the application of CS to EP,
which is triggered by a *rhetorical purpose* (RhP)
the speaker wants to weakly endorse the statement => concessive value

FIGURE 11.2 *Pouvoir* in the present tense indicative form

P1. The *core semantics* CS of the *modal form* MF = **NEC**

P2. The *semantic object* (SO) to which **NEC** applies
proposition NEC(P) => necessity, obligation
enunciation of proposition NEC(EP)

if **NEC** is applied to EP =>
P3. The particular value resulting from the application of CS to EP,
which is triggered by a *rhetorical purpose* (RhP)
the speaker wants to strongly endorse the statement => epistemic value,
strong inferences

FIGURE 11.3 *Devoir* in the present tense indicative form

statement. When applied to EP, *devoir* always indicates that the speaker has to say what s/he does. Therefore, s/he cannot weakly endorse the statement, as shown in (9). This difference between *pouvoir* and *devoir* is modeled in Figures 11.2 and 11.3.

2.2.1 *Pouvoir* and *devoir* in the Conditional Mood

The uses of *devoir* and *pouvoir* in the conditional mood are different from those in the indicative. On the one hand, the conditional form of *pouvoir* cannot have concessive readings, cf. (13); but it can be used in contexts when the speaker shows a dismissive attitude, cf. (14):

(13) ??Je **pourrais** être une femme, mais ...
'Maybe I am a woman, but ...'

(14) Je **pourrais** le faire, mais …
'I could do that, but …'

On the other hand, *devoir* cannot be used in "pure" inferential contexts:

(15) Pourquoi a-t-il pris froid?
'Why did he catch a cold?'
Il **doit** encore être sorti sans se couvrir / ??Il **devrait** encore être sorti sans se couvrir
'He devoir.PRES.IND have gone out without warm clothes. ??He devoir.COND have gone out without warm clothes.'

The core semantics changes when both forms are used in the conditional mood. As for *pouvoir*, the form can apply to both P and EP; *devoir*, on the other hand, can only apply to P. With *pouvoir*, the application to EP involves an interpretation according to which the speaker not only wants to weakly endorse the statement, but s/he adds a condition to endorse it. This allows *pouvoir* to be used in dismissive contexts, such as (7) above. On the contrary, it does not allow the use of *pouvoir* in a concessive context, because the indication of a condition to utter the statement cannot be relevant in a context where the statement is self-obvious. As for *devoir*, the form applies only to P. Thus, the values that it can endorse are linked to necessity or obligation plus condition. Such values are not compatible with pure inferential contexts, where a necessity or an obligation interpretation cannot hold. On the other hand, some inferential contexts can be ambiguous between a necessity submitted to condition interpretation and an epistemic one:

(16) A l'heure qu'il est il **devrait** être arrivé.
'By now he should have arrived.'
= Il est nécessaire qu'il soit arrivé si tout se passe comme prévu.
'It is necessary that it has happened if everything goes as planned'
= Tout porte à croire qu'il est arrivé.
'All indications are that he has arrived.'

Instead of considering the functioning of *devrait* as qualifying EP, we consider it as qualifying P. *Devrait* always conveys a flavour of necessity even if it is used in inferential contexts. Therefore, when the necessity interpretation is not available, as it is in the pure inferential contexts, the use of *devrait* is not possible. The use of *doit* is instead natural, because the form applies to EP indicating that it is necessary to utter P since the speaker has strong evidences, even if s/he does not explicitly address them, as in (15) above.

P1. The *core semantics* CS of the *modal form* MF = **POS** + **COND**

P2. The *semantic object* (SO) to which **POS** + **COND** applies
proposition POS(P) => possibility, capacity, permission
enunciation of proposition **POS** + **COND** (EP)

if **POS** + **COND** is applied to EP =>
P3. The particular value resulting from the application of CS to EP,
which is triggered by a *rhetorical purpose* (RhP)
the speaker wants to weakly endorse the statement => dismissive attitude

FIGURE 11.4 *Pouvoir* in the conditional mood form

P1. The *core semantics* CS of the *modal form* MF = **NEC** + **COND**

P2. The *semantic object* (SO) to which **NEC** + **COND** applies
proposition **NEC** + **COND** (P) => conditional necessity, obligation

FIGURE 11.5 *Devoir* in the conditional mood form

2.3 *German Modal Verbs*

The paradigm of German modals consists of six verbs: *können, sollen, müssen, mögen, dürfen*, and *wollen*. Unlike French, several modal verbs are associated with each of the core values POS and NEC, whereby a distinction between epistemic and non-epistemic uses is usually made for all of them (cf. e.g. Öhlschläger 1989, Diewald 1999, Mortelmans 1999, Abraham & Leiss 2009, Maché 2013, Baumann 2017). In this study, we focus on two different modal verbs from the POS domain, *können* and *mögen*, and one NEC verb *müssen*.[1] In terms of frequency, *können* and *müssen* are the most frequent ones, *mögen* is much less frequent, independently of which corpora of present-day German are consulted (see Maché 2013: 31–33 and references therein).

Depending on the particular context of use, *können* may be associated with three basic modal readings: 1. dynamic ability/capacity reading, 2. situational

1 The verbs *wollen* and *sollen* will not be considered in this study, as they differ from the other four verbs in several respects (see e.g. Maché 2013, Ch. 7). First, *wollen* is a modal verb with volitive semantics, and thus does not correspond to the core notions of POS and NEC focused on in this study. Second, the epistemic readings of these verbs are of evidential kind, expressing reportative modality/evidentiality. Third, there is no formal distinction between the preterit indicative and the preterit subjunctive forms of these verbs (*sollte, wollte*).

possibility reading, and 3. epistemic possibility reading. The ability reading of *können* represents a prototypical instance of dynamic modality, where *können* ascribes an ability or capability to the first argument participant of the infinitive verb, which is usually the agent participant realized as the subject of the clause.

(17) Sie **kann** schwimmen.
'She can swim.'

In its situational reading, *können* denotes possibility which is not ascribed to a particular individual but is inherent in the state of affairs, cf. (17).

(18) Es **kann** hier manchmal regnen.
'It can rain here sometimes.'

In its epistemic reading, *können* involves an estimation of the likelihood of the proposition expressed in the clause. More specifically, *können* expresses epistemic possibility.

(19) Er **kann** zu Hause sein.
'He may [lit.: can] be at home.'

With respect to the general model of modal meanings introduced above, we propose to treat all three readings of *können*, i.e. those of physical ability, situational possibility, and epistemic possibility, in a unified manner. We argue that in each case, *können*, similarly to its French pendant *pouvoir*, invokes its basic meaning of POS, and ascribes this possibility value on the propositional level. That is, the proposed notation of the semantic contribution of *können* is in any case: POS(P), that is, the propositional content is evaluated by the speaker as possible. Whether the POS value is ascribed to the first argument participant of the lexical verbs, as in the case of ability/capability reading in (17), or to the state of affairs as a whole, as it is the case with the situational (18) and epistemic readings (19), our semantic model does not differentiate between these usages, because the core contribution of *können* remains in each case the same (see Figure 11.6).

What is important for the purposes of the present study, is that *können* can be used in the indicative as well in the preterit subjunctive (Konjunktiv II) form. The function of the German preterit subjunctive is usually described as indication of the non- or counter-factual status to the proposition (Kasper 1987, Diewald 1999). Additionally, it has been noted that its function may be

P1.	The *core semantics* CS of the *modal form* MF = **POS**
P2.	The *semantic object* (SO) to which **POS** applies *proposition* POS(P) => ability/capacity, situational/ epistemic possibility ~~*enunciation* of proposition POS(EP)~~

FIGURE 11.6 *Können* in the present tense indicative form

described as an implicit reference to some non-fulfilled condition(s) preventing the proposition from being a fact.

Können with the preterit subjunctive marking mostly results in a compositional meaning, as exemplified in (20) for the dynamic reading of *können*: as *können* operates at the level of the proposition, its respective semantics is modified by the subjunctive morphology so that the ability reading remains the same, but the state of affairs is marked as non-factual due to the non-fulfilled status of some condition(s).

(20) Ich **könnte** schwimmen (, wenn ich meinen Badeanzug dabei hätte).
=> Ich kann im Moment nicht schwimmen.
'I could swim (, if I had my swimsuit with me).'
=> 'I cannot swim at the moment.'

With respect to the epistemic reading of *können*, the situation with indicative vs. preterit subjunctive forms is more complicated, however. Maché (2013: 54 ff.) for example proposes to see the major difference between the epistemic *kann* and *könnte* in the way they qualify the evidence underlying the epistemic judgment of the speaker. The degree of certainty is weakened, when the subjunctive form *könnte* is used, mainly due to the fact that the speaker does not know whether his/her premises hold, i.e. it is the premises whose status is questioned and thus non-fulfilled, which can be paraphrased as follows: "if my premises are correct, it is possible that p".

(21) Er **könnte** zu Hause sein. (Wenn meine Information stimmt, dass er um diese Zeit nicht arbeitet.)
'He could be at home. (If my information is correct that he is not working at this time.)'

In any case, epistemic *kann* and *könnte* seem to be not mutually replaceable (cf. Coates 1983, Lötscher 1991, Fritz 1997: 101, Mortelmans 1999: 205, Maché 2013: 63), as the degree of certainty decreases as soon as a subjunctive form is used.

P1.	The *core semantics* CS of the *modal form* MF = **POS** + **COND**
P2.	The *semantic object* (SO) to which **POS** + **COND** applies *proposition* **POS** + **COND** (P) => conditioned ability/capacity, weakened degree of situational/epistemic possibility

FIGURE 11.7 *Können* in the preterit subjunctive form

Müssen is usually associated with four different modal readings: 1. dynamic reading of a physical need, 2. dynamic circumstantial reading, 3. deontic reading of obligation, and 4. epistemic necessity reading.

In its first dynamic necessity reading, *müssen* indicates a physical need of the first-argument participant, cf. (22):

(22) Ich **muss** etwas essen, ich bin so hungrig.
'I must eat something, I am so hungry.'

In its dynamic circumstantial reading, *müssen* refers to the necessity that is conditioned by external factors ("participant-imposed" modality in Nuyts 2016; "participant-external" modality in van der Auwera & Plungian 1998), cf. (23):

(23) Sie **muss** viel lernen, um die Prüfung zu bestehen.
'She has to learn a lot to pas s the exam.'

Deontic *müssen* indicates an obligation which is imposed upon the first-argument participant by some laws and regulations, see (24):

(24) Dieses Gebäude **muss** überwacht werden. (Niemand darf es ohne Erlaubnis betreten)
'This building needs to be monitored. (Nobody is allowed to enter without a permission)'

Epistemic *müssen* indicates that the proposition is not part of the speaker's knowledge and expresses high degree of certainty of the epistemic judgment of the speaker, cf. (25).

(25) Dieses Gebäude **muss** überwacht werden. (Im Garten sind Polizisten zu sehen)
'This building needs to be monitored. (One can see police officers in the garden)'

P1. The *core semantics* CS of the *modal form* MF = **NEC**

P2. The *semantic object* (SO) to which **NEC** applies
proposition NEC(P) => necessity, obligation
enunciation of proposition NEC(EP)

if **NEC** is applied to EP =>
P3. The particular value resulting from the application of CS to EP,
which is triggered by a *rhetorical purpose* (RhP)
the speaker wants to strongly endorse the statement => epistemic value, strong inferences

FIGURE 11.8 *Müssen* in the present tense indicative form

In our model of modal meanings introduced above, different readings of *müssen* receive two different notations (see Figure 11.8). The dynamic and the deontic meanings introduced in (22), (23) and (24) invoke the basic meaning of necessity and modify the event expressed in the proposition: NEC(P). *Müssen* ascribes this necessity value to the proposition: NEC value may be either to the first argument participant of the lexical verb, as in the case of physical need and deontic readings, or to the state of affairs as a whole, as it is the case with the circumstantial reading.

On the other hand, if *müssen* is used in its epistemic reading, as in (25), the basic semantic contribution NEC, which remains the same, is applied not at the level of the proposition, but at the level of enunciation: NEC(EP), and the resulting interpretation may be paraphrased in the following manner: "it is necessary to say (E) that P". In our view, this fact explains why *müssen* is often associated with evidential nuances, in the sense: "in view of what I know, it is necessary to conclude that P".

As is the case with *können, müssen* comes across in two morphological realizations: as indicative *muss* and as preterit subjunctive *müsste*. Non-epistemic *müsste* can be treated along the same lines as the dynamic readings of the preterit subjunctive forms of *könnte*, cf. (26). As *müssen* operates at the level of the proposition, its respective semantics is modified by the subjunctive morphology so that the obligation reading remains the same, but the proposition is marked as non-factual due to the non-fulfilled status of some condition(s).

(26) Er **müsste** jetzt eigentlich arbeiten (wenn er nicht krank wäre).
=> Er muss im Moment nicht arbeiten.

P1. The *core semantics* CS of the *modal form* MF = **NEC** + **COND**

P2. The *semantic object* (SO) to which **NEC** + **COND** applies
proposition **NEC** + **COND** (P) => conditioned necessity/obligation
enunciation of proposition NEC + COND (EP)

if **NEC** + **COND** is applied to EP =>
P3. The particular value resulting from the application of CS to EP,
which is triggered by a *rhetorical purpose* (RhP)
=> weakened degree of situational/epistemic possibility due to non-factual or uncertain status of the premises

FIGURE 11.9 *Müsste* in the preterit subjunctive form

'He would have to work now (if he wasn't sick).'
=> 'He does not have to work at the moment.'

As in the case of epistemic *könnte*, the interplay of the subjunctive marking and the epistemic reading of *müssen* is rather complex. For the sake of simplicity, we can say at this point that *müssen* behaves more or less analogously to *können* in that the degree of certainty is weakened when the subjunctive form *müsste* is used (see Figure 11.9).

(27) Er **müsste** zu Hause sein.
'He should be at home.'

Mögen is probably the most difficult verb to analyse, as it involves a whole range of usages which do not seem to be related to each other (any more). It can be used as a volitive verb, and it always exhibits a concessive value whenever used as an epistemic modal verb, whereas its epistemic possibility reading has been lost in the last centuries. Additionally, its preterit subjunctive form *möchte* exists as an independent lexeme.

Volitive *mögen* is very similar to the other volitive modal verb *wollen* and is mostly restricted to negative contexts, as exemplified in (26) (see Welke 1965: 115, Öhlschläger 1989: 179, Weinrich 1993: 307, Fritz 1997, Diewald 1999, Maché 2013):

(28) Ich **mag** jetzt nicht darüber reden.
'I don't want to talk about it right now.'

Interestingly, *mögen* was able to express any type of circumstantial and epistemic possibility until the Early New High German period, and ceased to do so in present-day German (cf. Bech 1951, Fritz 1997, Diewald 1999). Diewald (1999: 392) argues that this semantics shift was due to the rise of another possibility modal verb *können*, which replaced *mögen* in the most relevant possibility contexts. As one of the outcomes of this competition, *mögen* has developed a more specialized volitive meaning and promoted it as its primary semantics.

The epistemic uses of *mögen* are restricted to the indicative form *mag* and are rather complicated to capture. As has been pointed out in multiple studies (e.g. Becker 1836, Bech 1949, Welke 1965, Öhlschläger 1989, Fritz 1991, Diewald 1999, Maché 2013), the so-called "epistemic" *mag* is mostly concessive and not at all epistemic. The speaker does not seem to judge the proposition as more or less likely. Instead, s/he is indifferent as to the epistemic status of the proposition. *Mag* signals that there is another speaker that believes the proposition to be true, and states at the same time that this is irrelevant in the actual discourse situation. Usually, another statement follows the sentence with *mag* in which a proposition is presented which the speaker treats as a fact, cf. e.g. (29):

(29) Er **mag** der beste Schauspieler sein, aber ich finde ihn nicht gut.
'Let him be the best actor, but I don't think he's good.'

Summing up, *mögen* is a "not well-behaved" possibility modal verb. With respect to the model of modal meanings introduced above, we focus only on the epistemic reading of *mag*, as the volitive/desire semantics of this modal verb cannot be accounted for in terms of POS (see Figure 11.10). As noted in Diewald (1999), the concessive variant of this verb has developed from the former epistemic possibility reading, which by now has almost completely been lost and has been taken over by the modal verb *können*. *Mögen* has obviously been subject to massif semantic shifts in the course of its diachrony, resulting in the lexical split introduced above.

For the concessive reading of the indicative *mag*, we argue that the core semantics POS is attached at the level of enunciation, and not at the level of proposition: POS(EP). As *mag* is used only in the indicative, there is no additional contribution of the subjunctive, and the semantic contribution of *mag* may be paraphrased as "it is possible to say that P". However, as the short description above has revealed, this interpretation does not capture in itself the concessive semantics of *mag*, which seems to have become dominant in present-day German. At this point, however, we let it as it is, in the least specific form, and postpone the discussion of the specific semantic contribution of *mag* to Section 5, after the presentation of the results of our corpus study.

P1. The *core semantics* CS of the *modal form* MF = **POS**

P2. The *semantic object* (SO) to which **POS** applies
proposition ~~POS(P)~~
enunciation of proposition POS(EP)

if **POS** is applied to EP =>
P3. The particular value resulting from the application of CS to EP,
which is triggered by a *rhetorical purpose* (RhP)
the speaker wants to weakly endorse the statement => concessive value

FIGURE 11.10 *Mögen* in the present tense indicative form

3 Hypotheses: POS vs NEC Modal Expressions and Concessivity

Our quantitative analysis will focus on the significance of the association between the modal verb and the conjunction fr. *mais*/germ. *aber*. A conjunction plays a non-negligible role in the liability of the modal form to occur in its left or right environment, since it gives an indication on the endorsement of the utterances it coordinates. According to the seminal work of Anscombre & Ducrot (1977), it is acknowledged that the left utterance has less argumentative strength, and thus is less strongly endorsed than the right one when both are linked by *mais*/*aber*. According to this background, we hypothesize that a POS form is more compatible with an utterance with less argumentative strength, in contrast to a NEC form. The conjunction indicating that the utterance in which it occurs is backgrounded in the discourse can hardly minimize the indication of necessity. On the other hand, it can strengthen the NEC value when it occurs in the utterance that follows *mais/aber*. We thus expect that the association of *mais/aber* with NEC modal forms on its left (= NEC … *mais/aber*) is less significant than the association of *mais/aber* with NEC forms in its right context (= *mais/aber* … NEC).

Conversely, we expect that POS modal forms are more compatible with the utterance which is discursively backgrounded, thus POS forms are expected to be associated with *mais/aber* to their right (= POS … *mais/aber*). Additionally, we can hypothesize that POS modal forms that can occur in concessive contexts (*pouvoir* and *mögen*) show a significant attraction to the conjunction *mais/aber* in their right context. Thus, we expect, in particular for French, that *pouvoir* in the present tense shows more attraction to right *mais* than *pouvoir* in the conditional mood, which is not compatible with concessive contexts.

TABLE 11.1 Corpora used for this study

	French	German
newspaper	Le Monde 2008[a]	ZEIT 2008[b]
corpus size	20,410 766 tokens	563,306 517 tokens

a Accessed through BTLC (Base Textuelle Lexico-statistique de Cologne, Diwersy 2014), constituted within the French-German project Presto (http://presto.ens-lyon.fr) and Emolex (http://phraseotext.univ-grenoble-alpes.fr/emoBase).

b Accessed through the DWDS interface (www.dwds.de).

4 Data and Methodology

To test our hypotheses, we have conducted two different corpus studies, one for the quantitative purposes, and one for the more detailed semantic analysis of the argumentative patterns the modal expressions are used in. For both studies, we used comparable corpora of German and French, namely the corpora of national newspapers (*Le Monde* for French, *Die Zeit* for German), from the same year 2008, to increase the comparability rate. Table 11.1 contains the basic information about the corpora used.

For the first quantitative study, we extracted all occurrences of the respective modal verbs from the corpus, as well as their occurrences with the relevant connectors, i.e. fr. *mais* and germ. *aber*. Note that for German, we considered only the indicative forms of *mögen*, as the preterit subjunctive form *möchte* represents an independent lexical element and cannot be used epistemically at all (see Section 2.3 for details). The relevant context window was set to 10 words (to the left and to the right; see Rossari et al. 2018:107 for the test of the most efficient window). To estimate the degree of association between modal verbs and the connectors, we have calculated the loglikelihood value (= LL score) of the cooccurrence of the modal expressions in question, i.e. modal verbs, with the adversative connectors fr. *mais* and germ. *aber*. The significance level was set to 10.38.

For German, we have added to this quantitative study a qualitative inquiry concerning the modal verb *mögen* (*mag* in the present indicative form), the unique modal verb having conventionalized the concessive meaning, in order to identify relevant contextual elements. We have extracted a random sample of 200 examples of the modal verb *mögen* from the same ZEIT-corpus. Each individual example in the sample was annotated according to the following parameters:

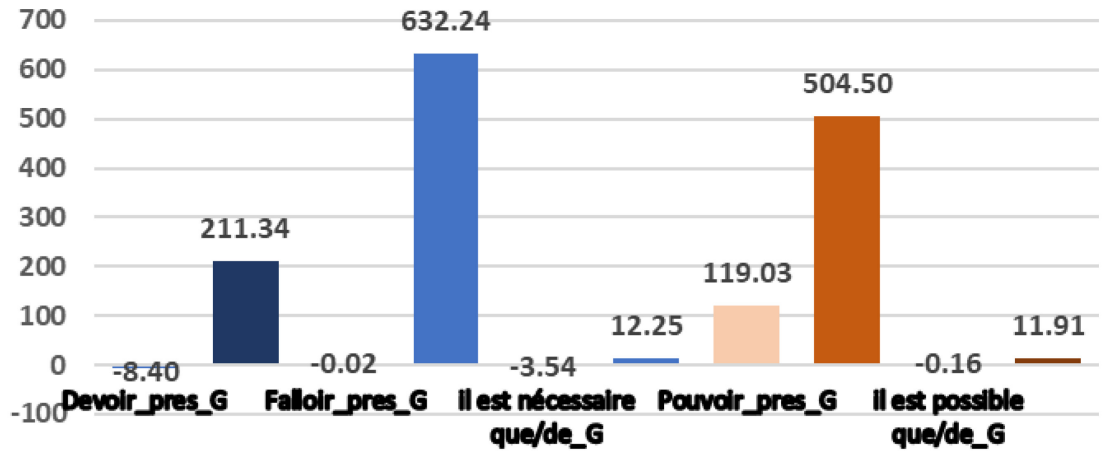

FIGURE 11.11 Association between modal expressions in the present indicative and the connector *mais* (G indicates that *mais* follows the modal expression)

- *reading* of the modal verb: dynamic, concessive, etc.;
- *connectors* present in the broader context, i.e. one sentence before and after the sentence with the modal verb;
- *infinitive verb* in the scope of the modal verb;
- *subject* of the clause: human, agentive, propositional, expletive, etc.;
- *syntactic structure*, e.g. main/embedded clause, conditional clause;
- *lexical material* in the broader context pointing towards a particular reading of the modal verb, e.g. sentence adverbials, modal particles, etc.

The rationale behind these parameters was to see whether *mag*, which, in the course of the last centuries, has obviously become conventionally associated with the concessive meaning and seized to convey any epistemic judgment of the speaker, is still tied to particular contexts of use which point to the (diachronic) origins of the concessive interpretation. In doing so, we hope to be able to understand how a potential interpretation of modal expressions of POS, which is largely due to the particular contextual and discursive environment, could have become the dominant reading of this modal verb.

5 Results and Discussion

5.1 *French Modal Expressions*

Figure 11.11 shows the association strength values of the French modal forms with core meanings NEC and POS on the one hand and the connector *mais* on the other. We have extended our paradigm to all modal expressions conveying POS (*pouvoir*, *il est possible*) or NEC (*devoir*, *falloir*, *il est nécessaire*) as core

meaning, in order to demonstrate that the results are due to the core meaning and not to the idiosyncrasy of the semantics of *devoir* or *pouvoir*.

The numbers are quite clear-cut for the NEC or POS forms. The NEC forms have no specific association with *mais* when they occur in the left environment of the connector; on the contrary, they have a high degree of association with *mais* when they occur in its right environment (211 for *devoir*, 632 for *falloir* and 12.25 for *il est necessaire que*).

The results for the POS forms are more complex. *Pouvoir* is associated with *mais* in the right and the left environment (119 left and 504 right), but *il est possible* is specific in the right environment only (11.9). This difference in the quantitative data between *pouvoir* and *il est possible* meets a difference in their distribution: *il est possible* cannot occur in concessive contexts, whereas *pouvoir*, as already seen, can:

(30) ??Il **est possible** que je sois une femme, mais ...
'It is probable that I am a woman, but ...'

(31) Je **peux** être une femme mais ...
'Maybe I am a woman, but ...'

In our model, this difference of use is accounted for by the application of CS to different semantic objects: *pouvoir* can apply to P or to EP; *il est possible* applies only to P. Therefore, it cannot appear in contexts in which the utterance is discursively backgrounded due to the content that is not relevant in the actual flow of discourse. In this context, the only way to interpret *il est possible* is to understand it as indicating that P is possible, which is a non-sense. Our model predicts thus that only POS forms that apply to EP can appear in concessive contexts.

To sum up, the quantitative data show that:

(i) The NEC forms are more frequently used in the right context of *mais*, because of their core meaning whether they apply to P or to EP.

(ii) The POS forms are more attracted to the left environment of *mais* when they apply to E(P) (*pouvoir* or *peut-être*) and convey a concessive value. When the form applies to P (*il est possible que* or *probablement*) it shows no attraction to the left of *mais*.

For the modal verbs in the conditional mood, we have modelled that *devoir* only apply to P and *pouvoir* to both semantic objects, but when it applies to EP it can only convey dismissive value not a concessive one. If (i) and (ii) above are correct, we should observe that *pouvoir* in the conditional mood is not attracted by *mais* to the left of it. *Devoir* should not reveal any differ-

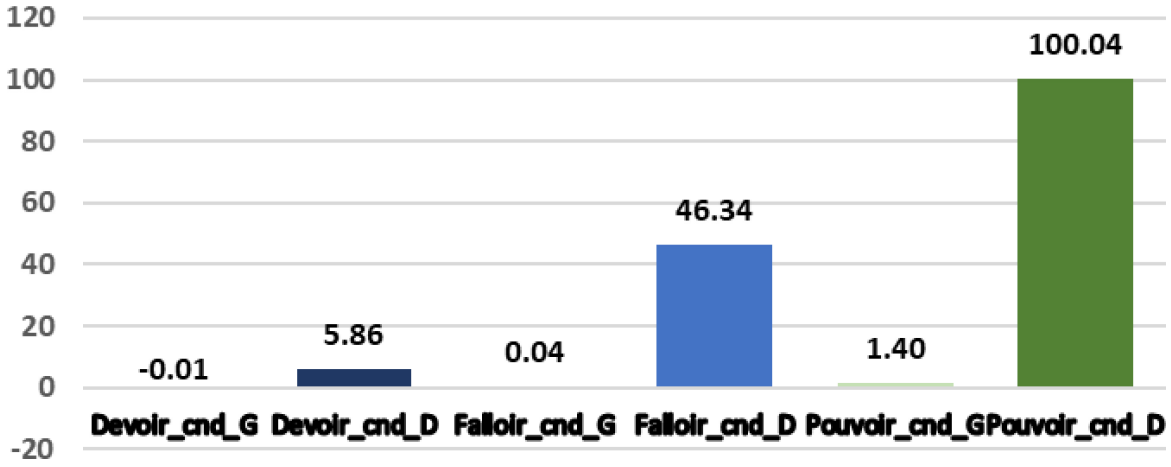

FIGURE 11.12 Association between modal expressions in the conditional mood (cnd) and the connector *mais* (G indicates that *mais* follows the modal expression and D indicates that *mais* precedes the modal expression)

ences, since the NEC forms show no attraction to the left of *mais*. We have done the inquiry for the NEC verbal modal forms *falloir*, *devoir* and POS MF *pouvoir*.

The trends are straightforward for *pouvoir*: the score shows no attraction to *mais* in the left position (1.4), whereas in the right position the score keeps on showing attraction (100). For the NEC forms, the LL score shows attraction for *falloir* in the right position but no attraction for *devoir*. This can be due to a corpus bias since in press the large majority of the occurrences of *devoir* in the conditional mood (90%) have temporal interpretation.

(32) Le ministère de la justice a transmis lundi 9 juin, au Conseil d'État un avant-projet de loi pénitentiaire qui **devrait** être présenté au Parlement à l'automne.
= l'avant-projet sera si tout se passe comme prévu présenté …
'On Monday, June 9, the Ministry of Justice sent the Council of State a draft penitentiary bill, which would be presented to Parliament in the fall.
= the draft will be presented if everything goes as planned …'

In this reading, *devoir* could not be rephrased with *faudrait*, which conveys very strongly a necessity value:

(33) Le ministère de la justice a transmis lundi 9 juin, au Conseil d'État un avant-projet de loi pénitentiaire qu'il **faudrait** présenter au Parlement à l'automne.
=/= l'avant-projet sera si tout se passe comme prévu présenté …

'On Monday, June 9, the Ministry of Justice sent the Council of State a preliminary draft of a prison law that should have been presented to Parliament in the fall.
=/= the draft will be presented if everything goes as planned …'

To sum up, the quantitative data concerning the modal verbs in the conditional mood are consistent with the assumptions (i) and (ii): the blocking of the concessive value makes *pourrait* less compatible with *mais* in the right environment.

5.2 *German Modal Verbs*

As mentioned in Section 3, only two German modal verbs, *müssen* and *können*, may occur in both forms, the present indicative and the preterit subjunctive, thereby maintaining basically the same semantics, including epistemic readings. For reasons of comparability, we will start by presenting the first quantitative results for these two verbs; the results for (*mag*) will be presented separately.

Figure 11.13 shows the association strength of *können* and *müssen* in the present tense indicative form and the connector *aber*. Similarly to French modal expressions with the basic meaning of NEC, *müssen* shows a strong negative attraction to *aber* in the following context (-98.57), whereas both forms are strongly attracted to each other when *aber* precedes *müssen* (34.8). In view of the model and the hypotheses presented above, this is exactly what we have expected of *müssen* due to its semantic core (CS) component of NEC.

A look at *können* reveals a similar picture: here again, there is an attraction with the preceding *aber* (50.04), and a dis-attraction with *aber* in the following context (-19.32). That *können* and *aber* show a high degree of attraction when *aber* precedes *können*, is again not surprising, and follows the same trend as in French. More specifically, *können* behaves in this respect like the French expression *il est possible que/de*, but not like French modal verb *pouvoir*. The reason for this behaviour is thus the same and is accounted for in our model by the application of the core semantics of POS to different semantic objects. As we have proposed in Section 2.3, *können* in all its readings applies only to P. For this reason, its usage in contexts where the utterance is discursively backgrounded is blocked. This is to say that the only way to interpret German *können* is to understand it as indicating that P is possible, be it dynamically, situationally, or epistemically. Moreover, as will be shown further below, it is the German modal verb *mag* which serves as a modal expression with the same basic component of POS, but applies almost exclusively at the level of EP, and, contrary to *können*, displays a very high degree of attraction to *aber* in the preceding context.

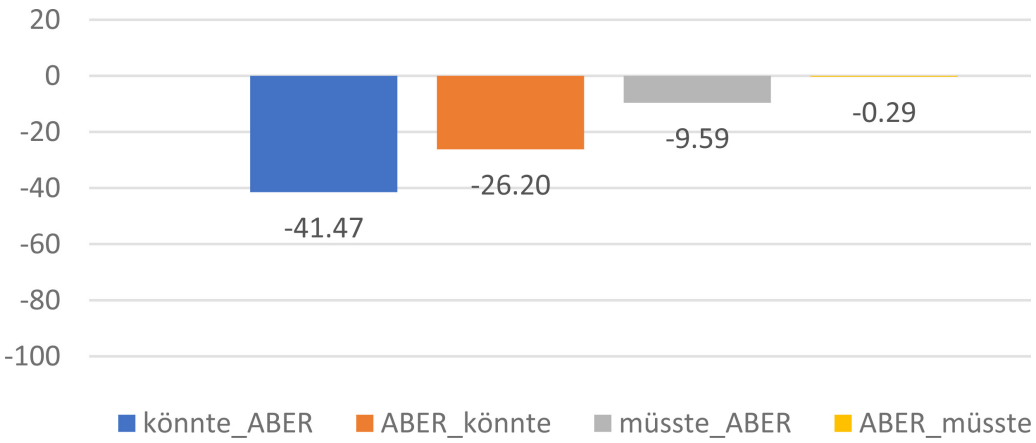

FIGURE 11.14 Association strength between modal verbs in the preterit subjunctive and the connector *aber*

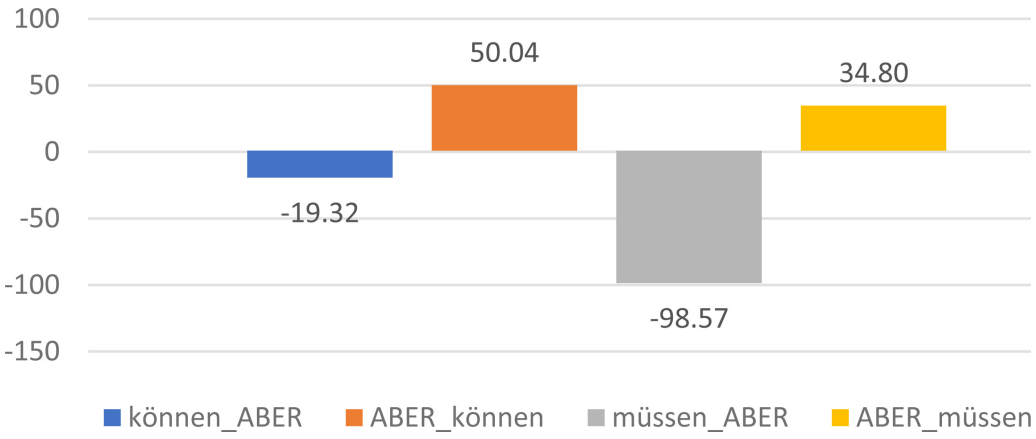

FIGURE 11.13 Association strength between modal verbs in the present indicative and the connector *aber*

Figure 11.14 presents the same association scores for the preterit subjunctive forms of the verbs *können* and *müssen*. This time, we find only negative values, but only those for *können* exceed the significance level of 10.38. *Können* shows thus a straightforward dis-preference with respect to the contexts with the adversative connector *aber*. Referring back to the point (ii) in Section 5.1: when a modal expression applies only to P, it is not likely to occur in concessive contexts and therefore should show no attraction to the following adversative connector. Therefore, we can say that this is again an expected result.

Figure 11.15 gives the association values of the modal verb *mag* (present indicative) and *aber* in the same corpus. What is particularly important, it the relation between *mag* followed by *aber*, which are extremely strongly associated with each other. Compared with the modal verbs *können* and *müssen* discussed above, *mag* is the only modal verb that is strongly associated with

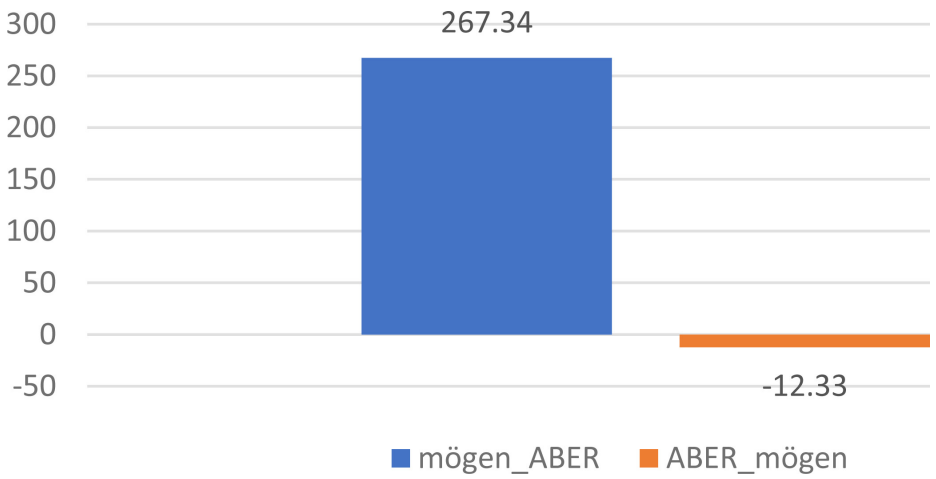

FIGURE 11.15 Association strength between modal verbs *mag* and the connector *aber*

the connector *aber* to its right in the discourse. And of course, this is what we had expected from our qualitative analysis, since *mag* is conventionally associated with the concessive value in present-day German, and, in this reading, applies exclusively at the level of EP, rendering the utterance in which is occurs as irrelevant and backgrounded in the actual discourse situation.

In the following, we will focus only on the modal verb *mag*,[2] and present the results of the qualitative semantic analysis of a sample of 200 examples extracted from the same newspapers corpus (ZEIT 2008). Table 11.2 gives the first overview of the readings found in this sample. As can be seen from this first overview, the concessive reading of *mag* is more frequent in our sample (ca. 60%); the rest of the examples represent the desire or preference reading of *mag*, where *mögen* only rarely combines with infinitive verbs, and instead is used with nominal complements, cf. e.g. (34):

(34) Sehen Sie, ich **mag** auch Schmuck. [Zeit Magazin, 13.11.2008, Nr. 47]
'You see, I like jewelry too.'

2 At this point, we would like to add a short remark on the diachrony of *können*. As presented in Figures 11.13 and 11.14, *können* is not associated with the following *aber* in the synchronic newspapers data. However, if one looks into the diachronic data from the 18th century, both modal verbs carrying POS value as their core semantics, i.e. *können* and *mögen*, were compatible with the adversative contexts and could be interpreted as markers of concessive value. However, whereas *mögen* established itself as a dominant expression of concessivity in German, and conventionalized this interpretation as its central semantic reading, this did not happen to *können*. Though both verbs were compatible with concessive readings in an earlier period of time, *mögen* seem to have occupied this semantic domain, and *können* has weakened its contextual ties with the adversative connective.

TABLE 11.2 Distribution of different readings of *mag* in the analysed sample

Reading	Attestations	%
concessive	119	59.5%
desire/preference/directive	81	40.5%
total	**200**	**100%**

The general idea of our model is to say that the core modal semantics of POS is applied at the level of enunciation (EP), and this application results in a particular discursive or rhetorical value of the form. For *mag*, it can be said that the proposition in the scope of this modal verb is not evaluated with respect to its epistemic status (anymore) and does not bear any epistemic value. Instead, a particular status of the utterance in the discourse is indicated by using *mag*. That is, *mag* serves exclusively to mark the status of the utterance as irrelevant, from the speaker's point of view, in contrast to another—explicitly formulated or implicitly present—proposition.

> Konzessive Bedeutung ist inhärent phorisch, indem sie eine Verbindung zwischen zwei Sachverhalten herstellt. Zwischen beiden Sachverhalten besteht ein Gegensatz, dem jedoch kein Gewicht beigemessen wird. Bei den meisten Verwendungen von *mag* ist diese Verbindung textuell vollständig ausgeführt: der *mag* enthaltene Satz gesteht die Möglichkeit eines entgegenstehenden Sachverhalts zu, ein nachfolgender (Teil-)Satz stellt den Sachverhalt dar, den der Sprecher trotz des möglichen Vorliegens eines Widerspruchs als faktisch bewertet.[3]
>
> DIEWALD 1999: 237

We would like to argue that in the case of *mag*, which is very strongly associated with concessive semantics and has practically lost its epistemic interpretation in present-day German, the application of the core modal meaning POS at the

3 Concessive meaning is inherently phorical in the sense that it establishes a link between two facts. There is a contradiction between them, but no weight is attached to it. With most uses of *mag*, this connection is fully explained in the text: the clause containing *mag* introduces the possibility of an opposite fact, a following clause represents another fact, which is evaluated by the speaker as factual despite the possible existence of a contradiction. (our translation).

level of EP—together with the contextual information presented in the text—gives rise to the concessive semantics of the contemporary *mag*. Therefore, we would like to propose the following qualification of the modal meaning of concessive *mag* in present-day German (Note that this characterization is different from those of the French POS verb *pouvoir* that covers different types of meanings which are represented in German by at least two distinct modal verbs, *können* and *mögen*).

> By shifting the modal qualification of possibility (POS) to the enunciation (EP) level by using *mag*, the speaker indicates that it is possible for him/her to utter the propositional content, **although** s/he consider it irrelevant for the current discourse.

The main point is, however, that this rhetorical interpretation is still heavily dependent on the particular communicative situation; it is always related to a particular argumentative strategy. This discursive interpretation of *mag* is still very tightly associated with different contextually present expressions which clearly express different nuances of contrast, irrelevance, adversativity, and concession.

Further above, we have shown that *mag* in general is strongly associated with the adversative connectors *aber* (32 out of 119) following the clause containing *mag*, consider (35).

(35) Man **mag** einwenden, es sei nichts Neues, dass die Chefs amerikanischer Konzerne eine Menge Geld kassieren. Aber es ist neu. [Die Zeit, 13.10.2008, Nr. 46]
'One might argue that it is nothing new that the bosses of American companies collect a lot of money. But it's new.'

In the sample analysed more thoroughly in this study, there are also other contextually present means which—together with *mag*—co-operate to trigger or support concessive interpretation. Table 11.3 below gives a list of most frequent expression types:

The examples (36)–(39) from the corpus illustrate these four main expression types found in the contextual environment of *mag*:

(36) adversative/concessive connectors:
Dies **mag** teilweise die Zögerlichkeit Angela Merkels, die Bernd Ulrich beschreibt, erklären. Andererseits ist die Kanzlerin eine strategisch denkende Frau … [Die Zeit, 17.12.2008, Nr. 52]

TABLE 11.3 Most frequent linguistic elements in the contextual environment of *mag*

Expression type	Examples	Found in N examples
adversative and concessive connectors	*aber* 'but', *allerdings, jedoch*, 'however', *andererseits* 'on the other hand', *dennoch, doch* 'nevertheless', *dagegen* 'in contrast'	60 50.4%
infinitive verb	*sein* 'be', *klingen* 'sound'; *daher rühren* 'result from', *daran liegen* 'lie in', *damit zusammenhängen* 'be connected to'	35 29.4%
irrelevance conditionals	verb-initial *mag*-clause; *wie auch* 'as well as', *doch so* 'no matter how', *noch so* 'no matter how', *so sehr auch* 'so much as'	27 22.7%
explicit lexical expressions of contrast	*auf den ersten Blick—beim näheren Hinsehen* 'on the first sight—upon a closer look'; *die einen—die anderen* 'the ones—the others', etc.	32 18.5%

'This may partly explain Angela Merkel's hesitancy, described by Bernd Ulrich. On the other hand, the Chancellor is a strategically thinking woman …'

(37) infinitive verb sein:
Der moderate Präsident wird sein Land schon wieder auf Beitrittskurs bringen. **Mag** sein. Muss aber nicht sein. [Die Zeit, 28.02.2008, Nr. 10]
'The moderate president will get his country back on track for accession. May be. But it does not have to be.'

(38) irrelevance consitionals:
Doch ganz gleich, wie gut seine Gründe dafür sein **mögen**, das Ergebnis ist, dass am Ende die Union als Lordsiegelbewahrer der Menschenrechte dasteht … [Die Zeit, 21.05.2008, Nr. 22]
'But no matter how good his reasons may be, the result is that, in the end, the Union stands as the lord seal holder of human rights …'

(39) lexical material:
Im Rest von Europa **mag** das eine Rolle spielen. Spanien aber ist anders. [Die Zeit, 06.03.2008, Nr. 11]
'In the rest of Europe this may play a role. But Spain is different.'

A closer look at the individual examples of concessive *mag* and at the contextually present linguistic cues has thus revealed that there are two basic components that come together in this interpretation:

– *mag* always evokes a kind of **contrast** between two propositions (this component is called "phoric" in Diewald's 1999 interpretation): *mag* not only modifies the clause it is used in, but it also connects this clause to another one (be it explicitly formulated in the following text or implicitly present in the discourse situation);
– *mag* qualifies the utterance as **irrelevant**, though possibly or even factually true (this component comes from the core modal semantics POS of *mögen*).

Most importantly, our qualitative study revealed that—though *mag* indeed can convey concessive meaning on its own, that is, the concessive meaning can be considered conventional semantics of this verb (form)—this reading is in most cases still supported by contextual clues and is closely tied to particular argumentative patterns, as e.g. adversative structures and irrelevance conditional structures.

6 Conclusion

In this paper, we have elaborated on the three-layer model of modal meanings developed in earlier studies. On the basis of this model, we have hypothesized that the modal expressions with the core meaning of POS are likely to be compatible with concessive contexts. We have observed that in the data, both German and French verbs show associations which very strongly support our hypotheses. At this point, we would like to interpret this tendency as a universal, cross-linguistic tendency, which of course should be tested against the data from more languages.

On the other hand, we also have found relevant differences between the two languages: Most importantly, in German, *mögen* is now strongly associated with the adversative contexts and has conventionalized concessive reading, whereas *pouvoir* in French only displays concessive reading as a possible interpretation in particular contexts. This suggests that there are relevant language-specific factors, as for example the presence of more than one modal verb in the semantic domain of POS in German, which may influence the synchronic situation as well as the diachronic development.

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CHAPTER 12

The Semantic Profile of the Past Evidential in Udmurt in Contemporary Texts

Rebeka Kubitsch

1 Aim of the Paper

The paper discusses the semantic profile of the verb forms expressing evidentiality in the Udmurt language. It discusses the typological features of the Udmurt evidential system and the evidential past in particular. The paper focuses on the semantic features of the paradigm associated with non-firsthand evidentiality in Udmurt and briefly reviews its relation to other categories. The paper also provides details about the functional distribution of the category within the research data.

2 The Udmurt Language

Udmurt is a language of the Permic subgroup of the Uralic language family, which is spoken by appr. 340,000 speakers. Most of them live in the Udmurt Republic in the Russian Federation, which is located between the Vyatka and Kama rivers. The ethnic population is 554,000 according to the census held in 2010 (Ethnologue).[1] The Udmurts form a minority in their own republic: Udmurts make up 28% of the republic's population, while Russians make up 62.2%.

The Russian language is dominant in cities and the administrational life. Only 62% of Udmurts speak Udmurt, while all of them speak Russian (and in the southern areas usually Tatar as well). Therefore, the speakers are mostly Udmurt-Russian bilinguals. (Salánki—Kondratieva 2018: 166–167) On the EGIDS scale Udmurt is considered a threatened language (Ethnologue).

Udmurt is part of the Volga-Kama linguistic area, which comprises Mari, Chuvash, Tatar and Bashkir, whereas Erzya, Moksha and Komi (Zyrian and Permyak) are on the periphery of the area (Helimski 2003: 159).

1 https://www.ethnologue.com/language/udm; last visited: 30/09/2019.

3 General Features of Udmurt Evidentiality

Based on Aikhenvald's classification of evidential systems, Udmurt has a two-term evidential system distinguished only in the past tenses (Aikhenvald 2004: 28). The choices of firsthand and non-firsthand evidential are possible in the system (Skribnik & Kehayov 2018: 539). In related literature of the Udmurt language, synthetic past tense forms associated with firsthand evidentiality are mostly referred to as 1st past, while the synthetic past tense forms associated with non-firsthand evidentiality are called 2nd past.[2]

The literature discussing Udmurt evidentiality and/or Udmurt tense system does not form a coherent opinion about the relationship of the 1st and 2nd past. Udmurt descriptive grammars (cf. GSUJ 1970, Tarakanov 2011: 189), textbooks (cf. Kelmakov-Hännikäinen 1999: 182; Kozmács 2002: 86) and evidential handbooks (cf. Aikhenvald 2004: 28; Skribnik–Kehayov 2018: 539) claim that the principle of choice between the 1st and 2nd past is eyewitness or firsthandedness. According to this principle the 1st past is used in the case of witnessed events and the 2nd past in the case of unwitnessed (especially reported, inferred) events.

However, according to Siegl (2004: 12) 1st past is a general/evidential-neutral past tense. Consultation with native speakers clearly suggests that 1st past does not necessarily indicate a witnessed event and in everyday speech it basically functions as a "default" past tense (cf. example 1, which is from the Udmurt wikipedia article of Alexandr Sergeyevich Pushkin).

(1) udm.wikipedia.org;[3] last visited: 12/01/2020
Context: Asserting the date of Pushkin's wedding.
1831-ti ar-ɟn 15-ti kwartoleź-e Puškin ***kɟšnojaśk-i-z*** (…).
1831-ORD year-INE 15-ORD May-ILL Pushkin **marry-1PST-3SG**
'In 1831, on the 15th of May, Pushkin got married.'

But in contrast with 2nd past forms 1st past can be associated with direct experience, firsthandedness and accurate knowledge (cf. example 2 and 3).[4] Example

2 Udmurt has a synthetic "pair" of past tenses, which are the so called 1st and 2nd past (also named as praeterite and perfect in some literature cf. Csúcs 1990). It also has four pairs of analytic past tenses formed with a finite verb form and the 1st or 2nd past form of the existential verb as an auxiliary. (Kozmács 2002: 86)

3 udm.wikipedia.org/wiki/Пушкин,_Александр_Сергеевич.

4 The explanation of example 2 and 3 are based on interviews conducted with native speakers by the author of the article in May 2019.

2 is from an Udmurt language newspaper (*Udmurt Duńńe*), example 3 is the same sentence but with the verb form modified by the author of the article in order to contrast the two past tenses.

(2) Udmurt Duńńe;[5] 31/01/2019; last visited: 12/01/2020
Context: The beer consumption of the Russian Federation.
Kįlem ar kuspįn Rossi -įn uliś -jos 8 miĺĺiard ĺitr sur
Last year Pp Russia -Ine inhabitant -Pl 8 billion liter beer
jui-ĺĺam.
drink-2Pst.3Pl
'During the last year Russian inhabitants consumed 8 billion liters of beer.'

(3) example 2 modified
Kįlem ar kuspįn Rossi -įn uliś -jos 8 miĺĺiard ĺitr sur
Last year Pp Russia -Ine inhabitant -Pl 8 billion liter beer
jui-i-zį.
drink-1Pst-3Pl
'During the last year Russian inhabitants consumed 8 billion liters of beer.'

According to native informants the difference between example 2 and 3 can root in the accuracy and reliability of the information and also in the authenticity of the information source. Example 2 (with the 2nd past form) could be suitable in a context in which the accuracy of the information is questionable (it could be less or more than 8 billion) or if the information source is indirect or the authenticity of the source is not strong (e.g. lay people talk about the topic). Example 3 (with the 1st past form) may be applicable if the assertion is based on an official document or statistics and it can be considered more accurate and credible. The 1st past also suggests that the speaker themself conducted research on the topic, hence they have an authentic source. But it is important to mention that the use of the 1st past does not exclude an indirect information source. It is also applicable if the speaker read about it in the newspaper or saw it on television.

Since 1st past mostly functions as a general past tense, but in specific cases it is related to firsthand information, it can be assumed that this past tense is becoming evidentially neutral.[6] Because of this ongoing process, a change in

5 https://www.yumpu.com/xx/document/read/62377722/ud7-25720.

6 Note, that Russian—a language which lacks evidentiality as a grammatical category has a strong influence on Udmurt, especially in the younger generations. It is possible that for elder speakers 1st past is more strongly associated with firsthand knowledge. However, this hypothesis needs further investigation.

the typological classification of Udmurt evidentiality should be taken into consideration, since it no longer seems to be a two-term system, which comprises a firsthand and non-firsthand evidential form, but one which opposes an evidential and non-evidential past.

The marker of the evidential past is polyfunctional and these functions are presumed to be historically polysemous. It covers several semantic contents in relation to evidentiality, such as inference and hearsay.[7] Evidential past forms can have additional connotations as well, such as mirativity. In tales and folklore texts the 2nd past functions as an attribute of genre. Evidential forms conjugated for 1st person may indicate the speaker's lack of control. (Winkler 2001; Siegl 2004; Kubitsch 2018; Skribnik-Kehayov 2018). With the imperative it encodes modal attenuation (Winkler 2001). It is important to mention, that 2nd past forms do not inherently encode a reduced degree of certainty and the above-mentioned functions are highly context dependent.

Historically, the paradigm of the evidential past has nominal origins, it is based on the perfect participle and as a tense it presumably existed already in Proto-Permic (Bartens 2000: 202–203; Kozmács 2008: 172). Originally, the 2nd past was possibly a perfect tense. However, in contemporary Udmurt, 2nd past is an evidential past tense and it does not have a non-evidential, solely temporal use.[8] The use of a (historically) perfect form as an evidential in all probability has emerged due to the influence of Turkic languages in the Volga-Kama area (Tatar, Chuvash and Bashkir) (Skribnik-Kehayov 2018: 542).

There is a typological generalization concerning perfect meanings and evidentiality (especially inferentiality) (Comrie 1976: 110). In several languages (like the frequently cited Turkish or Bulgarian) perfect forms or such forms which are historically derived from perfect, express evidentiality (cf. Izvorski 1997).

The general features of Udmurt evidentiality (a less-differentiated evidential system with a polyfunctional marker based on a perfect form), apply to other languages in the Volga-Kama area that have evidentiality as a grammatical category.[9]

7 Quotation is expressed with a quotative/modal particle *pe* (Leinonen 2000: 420). The particle has various functions, evidential and non-evidential as well. It may function as a quotative index, as marker of reported and inferred evidentiality and as a discourse particle with hedging function (cf. Teptiuk 2019).

8 In Komi, which is the closest related language of Udmurt and has a considerably similar evidential system, the 2nd past has non-evidential uses as well, such as resultativity (cf. Leinonen 2000).

9 In the Volga-Kama linguistic area only Mordva (Erzya and Moksha) lack of the category of evidentiality.

4 Data and Research

Corpus data serves as the foundation of the research. The data are entries of blogs written by Udmurt native speakers. Blogs were selected as their language is closer to the spoken varieties of Udmurt (e.g. containing Russian elements) than other available types of texts.[10] These blogs do not address a specific genre or topic, posts are written in informal, diary-style. Entries were randomly selected, but they contain at least one 2nd past form. The posts are from fourteen blogs,[11] written between 2011 and 2018.

The corpus data comprise 85,880 tokens. Three hundred entries were examined altogether. The research material contained 1113 past evidential forms.

The semantic connotations of evidential forms were established by analysing the context and by consulting with an Udmurt native speaker, who is currently affiliated with the University of Szeged as the lecturer of Udmurt language. Moreover, some results of a questionnaire and interviews with native speakers, which were conducted by the author, are also included as a guideline in order to establish the semantic connotation of 2nd past forms.[12]

The aim of the research is to assess the semantic profile of the 2nd past. In order to do this the following questions have been posed.

– Are there any functions of the 2nd past in the research material which have yet to be discussed in the previous studies of Udmurt evidentiality?
– How 2nd past forms are related to other categories (e.g. mood, person)? How this relation affects the interpretation of the 2nd past?
– What is the functional distribution of the 2nd past in the research material?

5 Use and Function of the 2nd Past in the Research Material

The following section is going to discuss in detail the functions associated with the 2nd past forms. These are the following: hearsay (5.1), inference (5.2), genre marking (5.3) mirativity (5.4) and lack of control (5.5).

10 There are journals written in Udmurt, but these texts are highly standardized, and journalists deliberately try to exclude Russian elements.

11 See the addresses of the blogs in the references.

12 Since the aim of the paper is to discuss the functions of the 2nd past in texts of blogs, the methodology and the results of the above-mentioned interviews and questionnaire will not be introduced in this paper.

5.1 *Hearsay*

One of the most prominent function of the non-firsthand evidential in Udmurt is expressing information acquired through hearsay. Example (4) illustrates this function of the 2nd past.

(4) vamentul.blogspot.ru; 06/03/2014; last visited: 19/11/2018
Context: The speaker's grandmother reminisces about her own youth. The speaker reports the information about her grandmother's life.
Pereś čužaj-e źuć gurt-įś ***vįl-em.***
old grandmother-POSS.1SG Russian village -ELA **be-2PST.3SG**
Bįź-em *udmurt-jos dorį.*
marry-2PST.3SG udmurt-PL PP
'My old grandmother was from a Russian village. She married into an Udmurt family.'

In the research material 614 instances of the 2nd past expressed hearsay information. This is 55% of all evidential forms examined in the study. It is important to mention that describing a series of actions of an unwitnessed event involves more verbs than a single personal inference (cf. example 5). Note the consequent use of the 2nd past.

(5) vuflower.blogspot.ru; 11/03/2015; last visited: 07/01/2020
Context: The speaker's father lost his phone in Moscow. Her mother told her about it on the phone. She retells the story.
Už-ze ***leśt-em*** *no,* ***mįn-em*** *so Krasnoj*
work-ACC.POSS.3SG **do-2PST.3SG** PTC **go-2PST.3SG** he red
plošad'-e. ***Kotįrsk-em.*** *Sere miĺįm-en*
square-ILL **go.round-2PST.3SG** then pancake-INST
ćaj ***ju-em.*** *Miĺįm-ze t'eĺefon-az*
tea **drink-2PST.3SG** pancake-ACC.POSS.3SG phone-ILL.POSS.3SG
tus ***pukt-em,*** *karman-az* ***ut'alt-em.*** *Sere*
picture **take-2PST.3SG** pocket-INE.POSS.3SG **keep-2PST.3SG** then
eššo ***porj-am*** *na. B. Ńemcov-ez bįdt-em vįž*
again **walk-2PST.3SG** yet B. Nemtsov-ACC kill-PTCP.PRF bridge
vįle no ***vuį-l-em.*** *Karman-az*
PP PTC **arrive-FRQ-2PST.3SG** pocket-ILL.POSS.3SG
pįr-e no—t'eĺefon-ez ęvęl. ***utća-m–***
reach.into-PRS.3SG and phone-POSS.3SG NEG **search-2PST.3SG**
utcá-m— *ęvęl* ***šed't-em.*** *Vokzal pala mįnįnį*
search-2PST.3SG NEG find-2PST.3SG station PP go

kariśk-em, *pojezd-leś* *kɨl'* [*-em*]*-ez*[13] *šusa kɨška-sa.*
decide-2Pst.3Sg train-Abl miss-Nmlz-Poss.3Sg that fear-Cvb

'He did his job, went to the Red Square. He went around it. Then he drank a tea and had a pancake. He took a picture of the pancake with his phone, and then kept it in his pocket. Then he had a walk again. He even visited the bridge, on which B. Nemtsov had been killed. He reaches into his pocket—there is no phone. He was looking for it, looking for it—did not find it. He decided to go to the station fearing that he would miss the train.'

A significant difference between example 4 and 5 is that in the case of example 4 the speaker reports a bit of information acquired from someone who has direct experience (i.e. her grandmother speaks about her own life), whereas in example 5 neither the speaker, nor her source has direct experience (i.e. her mother reports to her what his father has done). As we can see, the 2nd past is applicable in reporting secondhand and thirdhand information as well.

As it was mentioned in section 3, evidential forms in Udmurt do not encode the speaker's uncertainty or reduced commitment to the truth-value of the information in question (cf. example 6, 7). The 2nd past merely expresses that the speaker has non-firsthand (hearsay) information.

(6) marjamoll.blogspot.ru; 06/08/2014; last visited: 07/01/2020
Context: The story and details of a windmill in Udmurtia. The speaker acquired the information in a museum and reported it.
So *tẹlvuko-ez* ***pukt-em*** *Fjedor Efimovič* *Dragmirov*
that windmill-Acc **build-2Pst.3Sg** Fjedor Efimovich Dragmirov
1912-ti *ar-ɨn.*
1912-Ord year-Ine
'That windmill was built by Fjedor Efimovich Dragmirov in 1912.'

(7) kepics.tumblr.com; last visited: 03/01/2019
Context: The speaker and her family visited the castle Neidstein. She reports about it.
2006-ti *ar -ɨn* *Ńikolas Kejdž* ***baśt -em*** *ta* *izkar -ez,*
2006-Ord year -Ine Nicolas Cage **buy-2Pst.3Sg** that castle -Acc
noš *2009 -ti* *ar -ɨn* ***vuza-m.***
but 2009 -Ord year-Ine **sell-2Pst.3Sg**
'In 2006 Nicolas Cage bought that castle, but he sold it in 2009.'

13 The original text contains the form *kɨl'ez*, however correctly it is *kɨl'emez*.

The 2nd past codes that the information is from an indirect source, but when it comes to public knowledge, which is objective by nature, 1st past is preferred, even though the source is indirect (cf. example 3 in section 3).

(8) udmurt04ka.blogspot.com; 02/11/2014; last visited: 07/01/2020
Context: The speaker read an article in Komsomolskaya Pravda about a Wall Street broker, who had lost 100 kg. He had been trying to lose weight, but nothing had helped. Then his whole life had changed on 11th of September 2001. The speaker reports in her entry what she read in the article.
Vań ulon-ez ***voštiśk-em*** *11 śent'abŕ bere*
whole life-Poss.3Sg **change-2Pst.3Sg** 11 September Pp
2001 ar-įn. So ***kule*** ***vįl-em*** *lobźį -nį so samol'ot-įn,*
2001 year-Ine he **have.to be -2Pst.3Sg** fly-Inf that aeroplane-Inst
kud-ze t'errorist-jos ***zaχvat'it'*** ***kar -i -zį.***
that-Acc terrorist-Pl **hijack.Inf do -1Pst-3Pl**
'His whole life has changed on 11th of September 2001. He should have travelled on the flight which the terrorists hijacked.'

In example 8 the information source is indirect. Information related to the broker is reported in the 2nd past, but the fact of the hijacking is in the 1st past. It is evident that the events of 11th September were well documented in the media, hence it is public information.[14] Example 8 illustrates what was mentioned in section 3: the 1st past seems to be a "default", non-evidential past tense, but when it is contrasted with the 2nd past it may emphasize factuality and accuracy. In the corpus the 2nd past conveys reported information in 55% of all instances (614 tokens). In other words, in the research material the most frequent use of 2nd past forms are to express hearsay.

5.2 *Inference*

In the case of inference getting the information is based on the result of an event via a visible trace or tangible evidence (Aikhenvald 2004: 63). The Udmurt evidential past expresses the semantic content of inference as well. Referring to information acquired through inference is another prominent use of 2nd past forms. In the research material 218 instances of the 2nd past conveys inference (19,5%). The following examples (9, 10) illustrate the inferential use of the 2nd past.

14 Based on other research by the author it can be concluded that speakers prefer to use 1st past referring to information acquired through the media. However, the use of 1st past is not exclusive in such cases.

(9) kepics.tumblr.com; 03/04/2014; last visited: 03/01/2019
Context: A Hungarian-Udmurt family leave some milk and cookies for Santa Claus for the night. In the morning they see that the milk and cookies have disappeared. The absence of the milk and cookies is visible evidence (serving as a basis for inference) for Santa Claus's visit.
*Mikulaš-Tolbabaj jẹl-mes no **ju-em,***
Santa Claus milk-ACC.POSS.1PL PTC **drink-2PST.3SG**
*pećeńńa-mes no **śi-em!***
cookie-ACC.POSS.1PL PTC **eat-2PST.3SG**
'Santa Claus drank the milk and ate the cookies.'

(10) burdjos.ru; 29/08/2012; last visited: 07/01/2020
Context: The speaker looks out the window of her car and sees that the once green forest is now red, the trees have died. She thinks that there has been a fire, but later she is told that there has been a drought recently. Because the forest has turned red, the speaker infers the death of the trees and the possible fire.
Kotịr vož ńules-jos gordektị-sa sịl-o, pispu-os
around green forest-PL turn.red-CVB stand-PRS.3PL tree-PL
***kuli-ĺlam** Tịlpu **ortć-em** šat, malpa-j ńịŕịś,*
die-2PST.3PL fire **happen-2PST.3SG** PTC think[1PST]-1SG first
sobere valekt-i-zị: kęs kuaź sịl-em[15] *ińi*
then explain-1PST-3PL dry weather stand-2PST.3SG already
kịk-kuiń ar.
two-three year
'The green forests around turned red, the trees died. There had been a fire, I thought first, but then it was explained to me: there has been drought for 2–3 years now.'

The inferential and hearsay readings of the 2nd past are the most prominent ones in the research data. They make up 74% of all the instances. The following connotations of the 2nd past are less canonical from an evidential point of view: the 2nd past as genre marking/framing, the 2nd past as mirative, and 1st person 2nd past forms as to encode lack of control.

15 This 2nd past verb is not made bold because this section focuses on the inferential use. The verb *sịlem* is in this context refers to hearsay information because the speaker was told about the dry weather. This example also illustrates how context-dependent the functions of the evidential past are.

5.3 *Genre Marking and Framing*

As Aikhenvald (2004: 9) establishes, languages with evidentiality tend to develop conventions concerning preferred choices in different discourse genres, hence an evidential can be viewed as a token of a genre. Narrative texts cannot be completely prescinded from source of information either: folklore texts or tales are mostly rooted in oral tradition, so non-firsthand evidentials might express hearsay as well. In some classification of the semantic categories related to evidentiality, folklore is considered to be a subcategory of reportativity (Willett 1988: 57).

In Udmurt the 2nd past is the typical tense for narrating tales, stories, and other traditional genres (Kozmács 2002: 86; Siegl 2004). Udmurt folklore texts are almost exclusively narrated in the 2nd past (Siegl 2004: 129). The research contained four tales, four legends and sagas, and four other stories (12 altogether). In respect of the past tense forms found in these texts, five narratives (42%) consequently use the 2nd past (cf. example 11).

(11) marjamoll.blogspot.ru; 24/02/2015; last visited: 07/01/2020
Context: This is an old tale related to an ancient spirit (Sun-Mother) in the traditional faith of Udmurts. The speaker finds this story on a grave and quotes it. (2nd past forms are in bold in the text and the glossary of past tense forms is also marked linearly in the text in square brackets.)
Kuke no vaškala udmurtjos Inmarjossi̯lį oskemiś ***dugdiĺĺam***[2PST.3PL] *no Šundį-mumį sooslį šuni̯tse śotemiś* ***dugdem***[2PST.3SG]. *Oźį pereśjos Varńi ńimo pijašez* ***keĺaĺĺam***[2PST.3PL] *utćanį Šundijez. Pijaš soje gurt duriś* ***šed'tem***[2PST.3SG]. *Šundį-Mumį soje adźi̯sa šue: mon nokinlį no adźiśkiśkį. Noš ton li̯ktid bere, šuo ti̯ni̯d: merttį pužį̈m—Inmaren veraśki̯nį, merttį ki̯z—kuaźen veraśki̯nį. Merttį ki̯źpu—kuaźlį ji̯bbi̯rtti̯nį. Pijaš oźį ik* ***leśtem***[2PST.3SG] *no Šundį-Mumį kali̯klį noš ik šuni̯tse śoti̯nį* ***kutskem***[2PST.3SG].
'Some time the ancient Udmurts **had stopped**[2PST.3PL] believing in their gods and Sun-Mother **had stopped**[2PST.3SG] giving them warmth. So, the old ones **had sent**[2PST.3PL] a boy named Varńi to find Sun. The boy **had found**[2PST.3SG] her at the end of the village. Sun-Mother tells him: I do not appear to anybody. But since you have come, I'll tell you: measure flour to talk to God, measure spruce to talk to the spirit of weather. Measure birch to beg to the spirit of weather. The boy **had acted**[2PST.3SG] accordingly, and Son-Mother **had started**[2PST.3SG] giving warmth to the people again.'

However, in the data under consideration switches to 1st past forms can also be found (seven narratives; 58%). Such changes cannot be explained neither by

the change of information source nor by a perspective change in the narrative. Example 12 is an excerpt from a tale (from the beginning). The first section is narrated in 2nd past but after a conversation between the two characters the storyteller goes on in 1st past.

(12) kepics.tumblr.com, 22/06/2015; last visited: 05/01/2018
Context: This is an Udmurt translation of a German tale made by the speaker. (2nd and 1st past forms are made bold in the text. The glossary of past tense forms is also marked linearly in the text in square brackets.)
Kemalaś-kemalaś dįre punį ńuleskįn dolak ognaz ***ulem***[2PST.3SG]. ***Akįl'tem***[2PST.3SG] *solį sįče ognaz ulon, aslįz eš utćanį* ***kutskem***[2PST.3SG]. *Ben solį eš no sįčejez* ***kule vįlem***[2PST.3SG]*: dunńeįn so samoj kužmo no nokinleś kįškaśtem med luoz. Mįne so ludkeć dorį no vera:—Ludkeć, ojdo čoš ulom.—Ojdo, mon pumit ęvęl,—šue ludkeć.* ***Kutskizį***[1PST.3PL] *soos čoš ulįnį. Ogpol ujin punį ńuleskįś čaštįrtemez kįlįsa utįnį* ***kutskiz***[1PST.3SG].
'A long time ago a dog **lived**[2PST.3SG] alone in the forest. It **bored**[2PST.3SG] him living so alone, he started to look for a friend. But of course, he **needed**[2PST.3SG] such a friend: the strongest in the world and who is not afraid of anybody. He goes to the rabbit and says:—Rabbit, let's live together.—Let's do it, I am not against it,—says the rabbit. They **started**[1PST.3PL] living together. One night the dog, hearing rustling, **started**[1PST.3SG] to bark.'

The phenomenon of switches in past tenses in example 12 is characterized by Siegl (2004: 99) as framing. The opening lines of 2nd past create a framework of distance and convey the fact that it is a tale or legend (or any other text of a fictious genre). Siegl (2004) examining folklore texts establishes that the use of 1st past forms after the opening framing is more typical for Komi than Udmurt. This phenomenon can be observed in the research material as well. In four stories only the opening is written in the 2nd past, however these stories are not tales or legends. In such cases with the 2nd past in the opening the speaker relates the story to the audience (cf. framing) and uses it as a stylistic instrument to substantiate storytelling.

Considering tales and legends in the corpus under investigation it can be concluded that the 2nd past as a conventional genre marking is still present (cf. five narratives in the research data used the 2nd past consequently throughout the whole storytelling). However, the fact that the 1st past is becoming a general past tense and the 2nd past functions as framing, switches in past tenses may appear in narration.

5.4 *Mirativity*

Mirativity is referred to as the grammatical marking of unprepared mind or new information that may result in speaker's surprise (DeLancey 1997). According to Slobin & Aksu (1982) on Turkish, the speaker's immediate experience of an event does not correlate with the speaker's expectations. Mexas (2016: 10) defines mirativity as the marking of realization which is a transition from a state of lacking awareness to a state of awareness. Peterson (2010) characterizes the mirative readings of evidentials as a result of conversational implicature. Mirativity is shown to be linked to the semantics and pragmatics of evidentiality (Peterson 2010: 132).

The Udmurt evidential past can function as a mirative strategy. A mirative strategy is when a primarily not mirative marker has mirative meaning as a contextual pragmatic enrichment (Aikhenvald 2012: 472). The mirative meaning of the 2nd past is always implied.

In the corpus the 122 mirative instances (11%) can be divided into two subcategories. In both cases, the effect involves an information update (that is usually unexpected), but the reason for the mirative interpretation is different. A certain instance can have mirative interpretation because of the speaker's deferred realization (55 cases of 122; 45%). Deferred realization is a post-factum inference that is based on something that the speaker had previously witnessed but only later realized the exact meaning it revealed (Aikhenvald 2012: 468). Or, a certain instance can have mirative connotation because the information is surprisingly new or unexpected for the speaker (67 cases of 122; 55%). In the case of a speaker's deferred realization, the speaker has always witnessed the event in question, while in the case of unexpected information the speaker's direct perception is irrelevant; what is important is that there is a "distance" between the speaker's preconceptions and their immediate experience.

Example 13 and 14 illustrates the speaker's deferred realization. In example 13 the 2nd past is used because despite the speaker had direct perception (as she was speaking to the man), she did not know who he was until she looked him up on the internet.

(13) marjamoll.blogspot.ru; 17/10/2013; last visited: 09/01/2020
Context: The speaker has a conversation with a man on the bus. She sees the logo of a sport club of Izhevsk on the man's jacket. She asks whether he is a sportsman. The man says he used to be but now he is a trainer. The speaker realizes later (after looking up on the internet) that he is the manager of the sport club.
Vorgoron-e *Aleksej Vasiljevič Suncov* ***vi̮l-em.***
man-Poss.1Sg Aleksej V. S. **be-2Pst.3Sg**
'The man was Aleksej V. Suntsov.'

Deferred realization often involves the process of inference as well (cf. example 14). In example 14 the past evidential form is used because the speaker realizes post-factum (upon her arrival) that thistles stuck on her clothes.

(14) muketulon.tumblr.com; 10/11/2014; last visited: 17/07/2018
Context: The speaker's aunt visits the family. As she arrived there, she realizes that thistles had stuck on her clothes.
Tińi uk kopak Ĺugį ***Ĺakiśk-em*** *bordam!*
here PTC all thistle **stick-2PST.3SG** PP
'Look, thistles all stuck on me!'

A rather special case of deferred realization is encountered with 1st person 2nd past forms. In Udmurt 1st person past evidential forms indicate the speaker's lack of control over a given situation (Siegl 2004; Kozmács 2008; Skribnik-Kehayov 2018; Kubitsch 2018). In the corpus there are 40 1st person 2nd past forms. However, with 1st person evidential forms the mirative meaning is often implicated as well (19 instances; 47 % of all 1st person 2nd past forms in the corpus). The notion of deferred realization may appear when the speaker becomes aware of the execution of a nonvolitional/uncontrolled action not at the time of its execution but only later through the process of inference (Curnow 2003: 47). This can be seen in example 15 and 16. The actions described in the examples were performed unintentionally, and the speaker had a realization only after the actions had already happened.

(15) udmurt04ka.blogspot.com; 20/09/2015; last visited: 17/08/2018
Context: The speaker had a very rough day. As she was going home by tram, she realized that the tram had passed the stop she needed to get off at.
Ongįra-m kaď, ostanovka-me no ***ortći-śkem.***
numb-PTCP.PRF like stop-ACC.POSS.1SG PTC **pass-2PST.1SG**
'I was numb as I passed the stop.'

(16) udmurt04ka.blogspot.com; 20/12/2014; last visited: 17/08/2018
Context: The speaker participated in a sports competition. It was her first competition and she didn't think she would win, so she had trained very hard. After the competition she realized that she had lost 2 kilos in a week during the preparations.
Arńa kusp-įn 53 kilo -įś 51 ***kįli-śkem.***
week PP-INE 53 kilo-ELA 51 **remain-2PST.1SG**
'I lost 2 kilos in a week.'

It is important to mention that not all 1st person 2nd past forms convey deferred realization (cf. section 5.5).

As it was mentioned at the beginning of this section, a certain instance can have mirative connotation because the information is surprisingly new or unexpected for the speaker (cf. example 17 and 18). In such cases the realization is not deferred, and it is irrelevant whether the speaker had direct perception of the event in question or not.

(17) burdjos.ru; 18/05/2014; 09/01/2020
Context: The speaker visited Kazan with her friends. 2nd past indicates that she had not expected the city to be as beautiful as it was.
*Ćeber ik **vįl-em** Kazań...*
beautiful PTC **be-2PST.3SG** Kazan
'Kazan was really beautiful (...)'

(18) vuflower.blogspot.ru; 06/10/2014; last visited: 17/07/2018
Context: There was a celebration organized for the teachers of a school. The speaker is one of the teachers. Entering the room where the celebration would be held, she was surprised that half of the room was filled with children instead of teachers.
*Žįnį-leś tros-ez zal-įn pinal-jos **puk-o** **vįl-em!***
half-ABL lot-DET room-INE child-PL **sit-3PL.PRS** **be-2PST.3SG**
'More than half of the room was filled with children!'

In some cases (7 of 122) of the 2nd past encoding mirativity, the formally past tense can refer to events/states that are effectual in the present (cf. example 19).

(19) zangarik.ru; 28/08/2012; last visited: 12/01/2020
Context: The speaker visits her family. Her parents read her article written in an Udmurt journal. They criticize her, because she used a Russian word, although there is an Udmurt one. She comments on this that it seems to be that editors live at home too. The nature of the criticism is unexpected for the speaker.
*Dorįn ik redaktor-jos ul-o, **vįl-em.***
at.home PTC editor-PL live-PRS.3PL **be-2PST.3SG**
'Editors live at home too.'

As this section instantiated, the Udmurt evidential past is used to encode mirativity. In such cases mirativity is an implicated meaning, the 2nd past func-

tions as a mirative strategy. The modality of the sentences (exclamative) and the use of emphatic particles (13 instances of 122; 10%) also strengthen the mirative interpretation. Two subgroups of instances can be established based on the source of mirative reading. These can be the speaker's deferred realization or the unexpectedness of the information. Deferred realization seems to be a borderline category between the conventional evidential content and the mirative interpretation. On the one hand it is connected to evidentiality, since it involves inference despite the direct perception of the information. On the other hand, this newly understood information can be considered surprising. In my opinion, this "dual nature" of instances of deferred realization might illustrate the evolvement of the non-firsthand evidential as a mirative strategy (cf. Aikhenvald 2012: 471). In the other cases which convey mirative meaning the source of information is irrelevant—in such cases it seems that the 2nd past encodes purely (cf. example 17, 18, and 19) the fact that the experience of an event does not correlate with the speaker's expectations.

5.5 *Speaker's Lack of Control*

The content of lack of control or non-volitionality in Udmurt is restricted to 1st person context (and according to Curnow 2003: 42–43, in other languages as well). In languages with grammatical evidentiality if 1st person evidential forms are allowed, they tend to have some additional or special meaning, other than referring to the information source (Aikhenvald 2004: 219–220, Curnow 2002). The interpretation of such forms is typically connected to volition or control. This is called first-person effect (Aikhenvald 2015: 259). As it was mentioned in section 3 and 5.4, Udmurt 1st person 2nd past forms indicate the speaker's lack of control. Mirative (deferred realization) reading is also frequently, but not always implicated (19 of 40 instances). 13 instances (32%) of 1st person 2nd past forms encode merely the speaker's lack of control (without mirative reading).

In example 20 the 2nd past encodes merely the speaker's lack of control/intention. This interpretation is non-contextual, the grammatical form (evidential past in 1st person) inherently encodes the speaker's lack of control.[16]

16 In the 2nd past paradigm the *-śk* derivational suffix appears on 1st person forms. The suffix has various functions in the Udmurt language, the most frequent ones are expressing reflexivity and intransitivity (cf. Kozmács 2008). According to Kozmács (2008: 175–176) the *-śk* derivational suffix appeared on 1st person forms because of lack of control in order to morphologically encode (with its valence-decreasing function) the agent's suppression.

(20) udmurt04ka.blogspot.com; 17/04/2017; 08/01/2020
Context: The speaker strained her waist.
Kus-me ***vi̯rźi̯ti-śkem.***
waist-ACC.POSS.1SG **strain-2PST.1SG**
'I strained my waist.'

The remaining eight cases (20%) of 1st person 2nd past forms express hearsay. The speaker is told about their own actions, either because they were not in a conscious state (e.g. they were sleeping, were drunk) or because they cannot recall them (e.g. they were little children, or the actions simply did not happen—cf. gossiping). Note that in such cases the speaker's lack of control can be attested—the speaker was not "in charge" of their own actions. In four cases the quotative particle *pe* also appears to emphasize that the information is based on someone else's utterance (cf. section 6.1 on the 2nd past form and the quotative particle, see also example 22).

6 Constructions Involving the 2nd Past

Typologically, there are various interactions and dependencies between evidentiality and other categories such as tense, aspect, mood, modality or person (Aikhenvald 2015: 247). Some interactions have been discussed in the previous sections, such as the interaction with person (cf. 1st person 2nd past forms—example 16 and 20) or the interaction with tense (cf. evidential distinction is made only in past tenses and the marking of evidentiality is built into the past tense system).

In this section constructions involving the 2nd past are going to be discussed. The following structures occurred in the corpus:
– 2nd past in combination with the quotative/modal particle *pe*
– 2nd past with the epistemic adverbials *leśa* 'apparently, probably' and *vi̯ldi̯* 'perhaps, possibly'
– the 2nd past form of the existential verb with the necessitive participle
– the 2nd past form of the existential verb with the imperative and optative

The 2nd past in combination with the quotative particle and modal adverbials encode connotations related to evidentiality. The past evidential form of the existential verb in combination with the necessitive participle and the imperative convey non-evidential, but modal meanings.

6.1 *2nd Past and the Quotative/Modal Particle* pe

Udmurt has the particle *pe* to express quotation (Leinonen 2000: 420). Moreover, the particle can function as a marker of reportative and inferred evidentiality and as a discourse particle with hedging function (Teptiuk 2019). In the data under consideration the 2nd past co-occurs with the *pe* in the same clause in 33 cases. Their co-occurrence is significant, because both *pe* and the 2nd past keep their original meaning (evidential or, for example, lack of control in example 22). Double marking of information source in languages may appear to express that the information in the clause is from different sources. Hence double marking is never redundant (cf. Aikhenvald 2004: 94–95). Despite there are formally two separate evidential markers, they do not encode that the information is acquired through different sources: the 2nd past frames the clause as indirect/unwitnessed and *pe* functions as a quotative and emphasizes that the information is the result uttered by someone else, usually specified in the context (cf. example 21, 22 and 23).[17] The particle *pe* specifies the indirect source encoded by the 2nd past. It also can decrease the epistemic responsibility of the speaker: since the 2nd past does not have epistemic overtones, emphasizing that the information is uttered by someone else, the speaker can distance themselves. The use of the 2nd past and the *pe* particle seems like instances when the same evidential marker occurs more than once—typologically, the reasons for this type of double marking are usually pragmatic (cf. Aikhenvald 2004: 95 on Tariana and Baniwa).

(21) udmurt04ka.blogspot.com; 28/09/2013; last visited: 12/01/2020
Context: The speaker takes a taxi. She is speaking on her phone in Udmurt. After the phone conversation the taxi driver praises her in Russian, that she is very fine, because she speaks in Udmurt, since that is quite rare to hear. The speaker comments that the driver's mother was Udmurt.
Anaj-ez, ***pe,*** *udmurt* ***vi̯l-em.***
mother-Poss.3Sg **Q** Udmurt **be-2Pst.3Sg**
'His mother, he says, was Udmurt.'

The speaker cannot have direct information about the mother of an unknown taxi driver in the capital of the Republic, hence the 2nd past. Also, she reports this information based on the utterance of the taxi driver. In my opinion the distancing effect of the particle *pe* can be observed here. The taxi driver speaks in Russian, but he claims that his mother was Udmurt. With inserting *pe*, the

17 Many thanks to Denys Teptiuk for the vivid and enlightening discussion about the topic.

speaker is able to distance herself: the information may be either true or false, it is not her "responsibility" since she only reports the words of someone else.

(22) udmurt04ka.blogspot.com; 22/09/2013; last visited: 12/01/2020
Context: The speaker was very sick when she was a little child. The healers put her into the oven, because coal was considered to be medicine. The speaker got better right away.
*Sobere, **pe**, srazu **jẹna-śkem**.*
then **Q** right.away **recover-2PST.1SG**
'Then I, they say, have recovered right away.'

The speaker cannot remember the events, since she was only a little child and she was not in control of the events happened around/with her. She can only know about these events, because someone else has told her. The quotation particle *pe* emphasizes that the information is based on someone else's utterance.

(23) marjamoll.blogspot.ru; 03/08/2014; last visited: 12/01/2020
Context: The speaker visits an Udmurt village, Ivanovo-Samarsk. They are welcomed with different kinds of drinks and food. The speaker comments that they have been preparing to welcome them the whole week.
*Bi̯des arńa, **pe**, mi̯lemi̯z pumita-ni̯ **daśaśki-Ílam**.*
whole week **Q** us welcome-INF **prepare-2PST.3PL**
'The whole week, they say, they were preparing to welcome us.'

The speaker does not have direct perception of the preparation, therefore the 2nd past, but *pe* further specifies this indirect information source.[18] The example also illustrates the summarizing function of the particle: it cannot be expected that several speakers actually uttered that they have been preparing for the whole week, but based on several utterances this piece of information can be represented as the most important one (cf. Teptiuk 2019: 113).

6.2 *2nd Past and Epistemic Adverbials*

In the research material in 24 cases 2nd past verb forms co-occurred with epistemic adverbials. The adverbials *leśa* 'apparently, probably' (22 instances) and *vi̯ldi̯* 'perhaps, possibly' (2 instances) appeared. The reading of such construc-

18 Without the particle *pe* inference would be a more plausible analysis—different kinds of food and drinks would serve as tangible evidence for inference.

tions is either inference (cf. example 24) or assumption (example 25). While inference is based on visible, tangible evidence or result, assumption is based on other than visible results. This may be a mental construct, logical reasoning, previous or general knowledge. (Aikhenvald 2004: 63)

(24) marjamoll.blogspot.ru; 21/07/2014; last visited: 12/01/2020
Context: The speaker was at a festival. She did not like the music, she was bored. As she saw the face of her friends, she thought that they were bored too.
Soos no ***akįlti-ĺĺam*** *ńi,* ***leśa.***
they too **be.bored-2Pst.3Pl** already **apparently**
'Apparently, they were already bored too.'

In this example there is a visible trace for inference (facial expression). The epistemic adverbial weakens the assertation. However, there are instances (17 in the corpus) when the combination of the 2nd past and the epistemic adverbial encode assumption.

(25) marjamoll.blogspot.ru; 04/12/2013; last visited: 20/01/2020
Context: In the dormitory there are boys, who are extramural students. Since in the exam period they had nothing to do, they started to visit girls' rooms and there was one girl in particular, who was frequently visited. The girl's boyfriend started to become jealous of these boys. One day after midnight all the boys from their wing picked a fight with these extramural students. Later, the same night the speaker hears fighting again.
Zaoćńik -jos *noš ik so* *nįl-jos* *dorį* ***lįkt'i-ĺĺam***
extramural.students -Pl again that girl-Pl Pp **come-2Pst.3Sg**
leśa (…)
probably
'Probably the extramural students came again to those girls.'

In example 25 the speaker's previous knowledge is the basis of her assumption. In 17 instances the combination of the 2nd past and modal adverbials convey assumption and in seven examples the 2nd past encodes inference and the modal adverbial indicates the speaker's uncertainty.

6.3 *2nd Past and the Necessitive Participle*

The necessitive participle renders the necessity of carrying out an action, e.g. *eskerono už* 'the matter which must be investigated' (Csúcs 1990: 55). The co-occurrence of the necessitive participle and the 2nd past form of the existential

verb (*vįlem*) was attested 13 times in the corpus. From these 13 instances seven can be considered as non-compositional structures.[19] These structures refer to an action which the speaker found desirable to have been carried out in the past, but they were not (cf. example 26). Therefore, the structure expresses irreal modality and does not have evidential connotation.

(26) zangarik.ru; 28/06/2012; last visited: 12/01/2020
Context: The speaker visited a singing contest as a spectator and commented on the participants' performance. In one of the performances she finds the dresses of the background dancers inappropriate, because as they were spinning everybody could see under their skirts. She states how they should have dressed up.
Jake derem Kuź -ges kule, jake derem ule make
or dress long -COMP have.to or dress PP something
diśa -no na vįl-em.
dress -PTCP.NESS yet **be-2PST.3SG**
'Either the dress should have been longer, or they should have put something on under their dresses.'

6.4 *2nd Past with Imperative Mood*

In Udmurt the paradigm of the imperative is incomplete: only 2nd and 3rd person forms exist. 2nd person forms are expressed with the verb stem and 3rd person forms with a construction comprises the *med* particle and the corresponding form of the future tense.[20] (Winkler 2001: 51).

In the corpus five instances are attested in which a verb in the imperative co-occurred with the 2nd past form of the existential verb. Two instances represent 2nd person forms (cf. example 27), and three instances 3rd person forms (cf. example 28). Just as in 6.3, these constructions are modal as well.

(27) vuflower.blogspot.ru; 18/12/2014; last visited: 12/01/2020
Context: The speaker complains about living in the city. Also says that nowadays even in the villages people cannot run a farm, because there

19 In the instances (6) the meaning of the necessitive participle and the 2nd past form of the existential verb is compositional. In such cases the necessitive participle refers to the necessity of carrying out an action and the existential verb in the 2nd past renders mirativity expressing that the speaker realizes only post-factum the necessity characterized by the participle.

20 In Southern Udmurt there is a complete paradigm of a mood formed with the *med* particle and the future tense. It is considered to be optative mood. The construction is used only in subordinate clauses (Edygarova 2015: 273–274).

is not enough workforce (since the youngsters migrate to the cities). She wishes the youngsters came back (but she knows that this is quite unlikely, since the lands are very expensive).
Bert-e ***vi̮l-em*** *jegit-jos!*
return -IMP.2PL **be-2PST.3SG** young-PL
'Come back young ones!'

(28) burdjos.ru; 26/09/2012; 12/01/2020
Context: The speaker attended to a program organized by an Udmurt television channel. They spent 2 hours in the studio, so their discussion would not remain only spoken (but there will be a record of it).
Ki̮l *vi̮li̮n* *gine* ***meda-z*** ***ki̮ĺi̮*** ***vi̮l-em*** *tunne*
tongue PP only **NEG.IMP-3** **remain.CNG** **be-2PST.3SG** today
veraśkem.
discussion
'(So) today's discussion would not remain only spoken.'

Despite the small number of examples, it is worthwhile to discuss this construction, because there is discrepancy in the literature and in the speaker's judgement in respect of the possibility and meaning of the construction. According to Winkler (2001: 51) using the 2nd past form of the existential verb after an imperative form can change a direct command into a quasi-indirect one and thereby weakens them.[21] At the same time Siegl (2004: 17) claims that the 2nd past cannot combine with the imperative.

Based on a questionnaire made by the author, regarding the 2nd person imperative and the 2nd past, 33 informants out of 76 (39%) claimed that they do not use such forms, however, they were able to assign meaning to them. The informants characterized the meaning of such forms as a "soft request" which is not necessary to be done or a "desire", which is likely not to be become true (cf. the context of example 27). Also, 48 informants (63%) drew a parallel between the meaning of the construction consisting of the imperative and the 2nd past and the construction of the necessitive participle and the 2nd past (cf. section 6.3). Native speakers associated a similar function with 3rd person imperative forms: the construction expresses the

21 The 1st past form of the existential verb has the same function. Inserting the 1st past form of the existential verb after an imperative form weakens the illocutionary force, expresses request instead of command. This strategy is conventionalized in Udmurt. (Winkler 2001: 52)

speaker's desire, but the 2nd past form of the existential verb makes it more "emotional" and "softer".

Instances of the imperative and the 2nd past form of the existential verb in combination illustrate modal attenuation. The 2nd past form attenuates the illocutionary force. The 1st past form of the existential verb (*val*) serves the same function (cf. note no. 22), but with the 2nd past form the attenuation is even more pronounced.

7 Functional Distribution of 2nd Past Forms in the Corpus

The following figure (Figure 12.1) illustrates the functional distribution of the 2nd past in the corpus. Percentages are approximal values.

As Figure 12.1 shows 2nd past forms encoded hearsay information in more than half of their occurrences (614 instances, 55%). The second most prominent function of the 2nd past is encoding inference (218 instances, 19,5%), the third one is expressing mirativity (122; 11%). The high number of hearsay occurrences can be explained with the fact that reporting an event acquired through hearsay involves a larger number of verbs (since a whole chain of actions are described) than for example a single personal inference (cf. section 5.1, example 5).

A relatively high number of occurrences of the 2nd past as genre marking and framing can be observed because out of the 12 narratives examined in this research, five used 2nd past forms consequently throughout the whole narrative (cf. section 5.3). Instances of the 2nd past conveying the speaker's lack of control is rather rare. This reading is restricted to 1st person contexts and it covers a narrow domain of meanings (cf. section 5.5). Also, beyond the speaker's lack of control, the mirative meaning is frequently implicated: the speaker realizes that they acted nonvolitionally only post-factum (cf. section 5.4). Past evidential forms in combination with other grammatical elements are possible to use to convey assumption (cf. section 6.2) and modal meanings (modal attenuation, cf. section 6.4), but such instances are considerably rare.

Based on the qualitative analysis carried out on the data under consideration it can be concluded that 2nd past forms in Udmurt most frequently express hearsay, inference and mirativity.

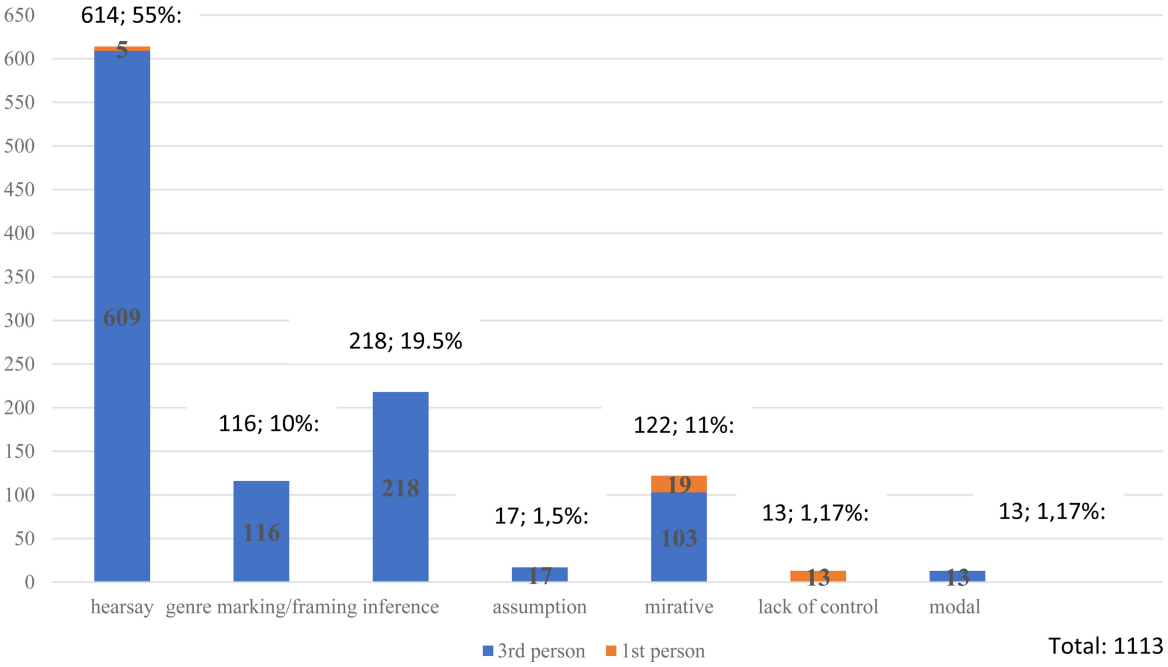

FIGURE 12.1 Functional distribution of 2nd past forms

8 Conclusion

The paper discussed the uses of verb forms expressing evidentiality in Udmurt. A qualitative and quantitative analysis has been carried out on contemporary texts in order to determine the functions of the past evidential, also known as the 2nd past tense.

The Udmurt past evidential has shown various interpretation in the research material. The following types of interpretation (cf. Figure 12.1) has been attested: hearsay, genre marking/framing, inference, mirative, lack of control and in combination with other grammatical elements/categories, it conveys assumption and modal meanings as well.

Among these connotations, assumption has not yet been discussed in the existing literature on Udmurt evidentiality. Although all the other functions of the 2nd past has been mentioned (cf. section 3) in earlier research, the paper provided a more elaborated discussion about the uses of the past evidential. In the paper it has been established that mirative is an implicated connotation of the 2nd past and that mirative instances can be divided into two subgroups based on the origin of mirative connotation. These are deferred realization and unexpectedness (cf. section 5.4). Also, it has been shown that a large number of 1st person 2nd past forms have mirative interpretation, however such forms still convey the speaker's lack of control (cf. section 5.4 and 5.5). The genre marking and framing function of the 2nd past can be attested not only in folklore texts (cf. Siegl 2004), but in other types of narratives as well (cf. 5.3).

The paper also discussed some constructions including past evidential forms. These are the following: past evidential with the quotative particle *pe* in the same clause, past evidential with modal adverbials, past evidential with the necessitive participle and past evidential with the imperative mood.

Among these constructions only the 2nd past and the imperative has been briefly discussed before (cf. Winkler 2001). Based on the results it can be established that the past evidential form of the existential verb is compatible with the imperative mood and it expresses modal attenuation, just as its 1st past counterpart (cf. 6.4). Similarly, the co-occurrence of the existential verb in 2nd past and the necessitive participle conveys modal meaning (6.3). Only the existential verb can participate in such constructions.

In the case of the co-occurrence of the evidential past and the quotative particle, both constituents keep their original meaning—the 2nd past indicates that the information is indirect and the quotative particle emphasizes that this non-witnessed information is based on someone else's utterance (cf. 6.1). The 2nd past co-occurring with modal adverbials may encode either inference or assumption (cf. 6.2). In the case of inferential meaning the structure is compositional, the 2nd past encodes inference and the modal adverbial the speaker's uncertainty. In the case of a non-compositional structure they jointly express assumption.

Apart from the main topic of the paper, the semantic profile of the 2nd past, the relationship of the 1st and 2nd past was briefly discussed in section 3. It is important to emphasize that there seems to be an ongoing change in the evidential system of Udmurt, which may result in a change in the typological classification of Udmurt evidentiality (as comprising an evidential and non-evidential past tense). Comprehensive research involving different genres of texts and speakers of different generations can help to record the ongoing changes in the evidential system and characterize the relationship of the 1st and 2nd past as well.

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