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The speaker's viewpoint on events: from tense to stance

Stéphane Robert

Abstract

Based on Wolof data, this article introduces a new framework to account for the various functions of TAM markers in discourse while maintaining a unitary definition for each of them. This framework relies on a new functional definition of assertion, operationalizing the speaker's viewpoint and the time of speech as the founding parameters of the default frame of reference for any utterance. These two parameters function as the source of the modal and temporal specifications of the utterance. Their varying salience for a same TAM marker is shaped by the context of use. Applied to the Wolof verbal system, this approach makes it possible to account for the various uses of the Zero-tense, ranging from a narrative to a subordinating mood through various forms of subjective or intersubjective modality. Applied to the Perfect, Presentative, and to the Imperfective suffix, this framework also reveals regular mechanisms connecting aspect, tense, modality and stance.

Keywords

aspect, modality, tense, stance, viewpoint, subjectivity, pragmatics, narrative, Wolof, Africa

9.1 Introduction: the Wolof verbal system as an emblematic case study

Wolof is a Niger-Congo language belonging to the Atlantic branch, mainly spoken in Senegal¹. When studied in discourse, the Wolof TAM markers display a baffling variety of uses that challenges a unitary analysis for most of them. Originating probably from particles and pronouns (Robert 1991; in press), the verbal system of Wolof consists of a set of eleven primary paradigms (listed in Table 9.1 and detailed in Table 9.2) in which aspect and tense are merged with other verbal specifications such as focus, polarity, modality and personal specifications. The Wolof verbal constituent actually has two components: an invariant lexical stem and an inflectional marker conveying the verb's grammatical specifications. The inflectional marker is (mostly) preposed, postposed, or suffixed to the lexical stem; the two components are therefore formally separate but functionally linked. The term 'conjugation' is used here for convenience to refer to these inflectional paradigms combining with the verbal lexeme. These conjugations are predicative markers: in a well-formed sentence, every clause has to contain one (and only one) of them.

¹ I wish to thank the editors and the reviewers for their thorough comments on previous drafts. Any errors remain my own.

Table 9.1 The primary conjugations of Wolof

- Focus	Presentative ² , Zero-tense, Perfect (and Future)		
+ Focus	Verb Focus, Subject Focus, Complement Focus		
+ Negation	Negative, Emphatic Negative, Prohibitive		
+ Jussive modality	Obligative, Imperative (and Prohibitive)		

The full paradigms are provided in Table 9.2. Future can be added to the list. However, strictly speaking, this conjugation is not a primary one for two reasons: it is formed by combining the Perfect inflectional markers with an imperfective copula (more like an auxiliated form), and, as a result, this construction contrasts with the other conjugations in view of its future tense locus (for all verb types), as we shall see below.

Table 9.2. The eleven primary conjugations in Wolof for lekk 'eat' and loolu 'that'

	Perfect	Presentative	VERB FOCUS	SUBJECT FOCUS	COMPLEMENT FOCUS
1 sg	lekk naa	maa ngi lekk	dama lekk	maa lekk	loolu laa lekk
2	lekk nga	yaa ngi lekk	dang lekk	yaa lekk	loolu nga lekk
3	lekk na	mu ngi lekk	da(fa) lekk	moo ∼ NP-a lekk	loolu la lekk
1 pl	lekk nanu	nu ngi lekk	danu lekk	noo lekk	loolu lanu lekk
2	lekk ngeen	yeena ngi lekk	dangeen lekk	yeena lekk	loolu ngeenlekk
3	lekk nañu	ñu ngi lekk	dañu lekk	ñoo lekk	loolu lañu lekk
	ZERO-TENSE	(FUTURE)	ODLIGATIVE	MEGATINE	Емрнатіс
	a.k.a NARRATIVE	cf. Perfect	OBLIGATIVE	NEGATIVE	NEGATIVE
1 sg	ma lekk	di-naa lekk	naa lekk	lekk-uma	duma lekk
2	nga lekk	di-nga lekk	nanga lekk	lekk-uloo	doo lekk
3	mu~∅ lekk	di-na lekk	na lekk	lekk-ul	du lekk
1 pl	nu lekk	di-nanu lekk	nanu lekk	lekk-unu	dunu lekk
2	ngeen lekk	di-ngeen lekk	nangeen lekk	lekk-uleen	dungeen lekk
3	ñu ∼Ø lekk	di-nañu lekk	nañu lekk	lekk-uñu	duñu lekk
	IMPERATIVE	PROHIBITIVE ³			
2 sg	lekk-al	bul lekk			
2 pl	lekk-leen	buleen lekk			

When it comes to their aspectual and temporal values, these inflectional paradigms can be analyzed as perfectives using the speech moment as tense locus. For such tensed aspectual verb forms, very common in African languages, some authors prefer to use the term 'completive' (vs. 'incompletive') aspect (e.g. Gasser 1988), in order to avoid confusion. This aspecto-temporal specification usually results in different temporal readings depending on the verb type: dynamic verbs (e.g. lekk 'eat', daanu 'fall down') refer to completed, i.e. past, events at the time of speech, while stative verbs (e.g. bëgg 'love, want', sonn 'be tired') refer to present states. For instance, with the Perfect inflection lekk na means 's/he has eaten' whereas bëgg na means 's/he wants'; with the Verb focus inflection dafa daanu means 's/he fell down' whereas dafa sonn means 's/he is tired'. Perfective aspect with the speech moment

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² In order to avoid confusion, capitalized names are used here for language-specific morphological categories (e.g. Presentative, Perfect) but lower case for semantic concepts or functions (e.g. presentative, perfect), which may be expressed in multiple ways across languages.

³ For this paradigm, the Zero-tense inflection (postposed to the *bu* morpheme) replaces the Imperative one for the 1st and 3rd persons (e.g. 1SG *bu ma lekk*).

as tense locus is the morphologically unmarked value of this verbal system. These primary conjugations enter into secondary oppositions by means of aspectual and temporal suffixes: imperfective and past reference are derived from the bare (perfective) conjugations by suffixation (Table 9.3). The most obvious effect of the Imperfective suffix is that it changes the temporal value of dynamic verbs from past to an ongoing present, a habitual, or a proximal future (e.g. *moo lekk* 's/he is the one who ate' vs. *moo-y lekk* 's/he is the one who is eating / usually eats / is going to eat'). Lastly, negation is integrated in the Wolof verbal system in a complex manner depending on the scope of negation. The three negative conjugations are paired with some of the affirmative conjugations which they negate, producing a negative assertion (e.g lekk-uma 'I haven't eaten / I am not eating'). But there is also a negative suffix that combines with the other (unpaired) affirmative conjugations, i.e. the three focusing conjugations and the Zero-tense, preserving here the affirmative assertion: the negation is not in the scope of the assertion, which is why the negative morpheme is suffixed to the verbal lexeme (e.g. *moo lekk-ul* 's/he is the one who did not eat'). For a detailed overview of aspect and tense and a summary of negation in Wolof, one may refer to Robert (2016).

Table 9.3 Tense, aspect, and polarity marking in the Wolof verbal system (forms and values)

	Conjugations	Suffixes combining with the conjugations	
Aspect	unmarked (perfective)	suffix $-y \sim di$ (imperfective)	
Tense locus	unmarked (present)	suffix -(w)oon (anterior past); -(w)aa(n) (remote past)	
Polarity	unmarked (affirmative)	suffix -ul (negation of affirmative paradigms)	

This verbal system raises two main types of problems justifying the choice of Wolof for exploring the correlation between the temporal and non-temporal uses of aspectual morphemes. A first challenge, which will not be discussed in detail in this chapter, is to account for the absence of marking of perfective aspect in this language. How does the perfective aspect relate to the specific meaning of the various conjugations so that in each case it does not need to be marked? This point has been addressed in Robert (2016), where I essentially argue that the perfective aspect in Wolof is analyzed as a common by-product of the conjugations' core meaning and induced by three different configurations: resulting state (for the Perfect), temporal presupposition (for the focusing conjugations), and a comprehensive view of the process (for the Zero-tense and Presentative).

Leaving aside the negative, focusing⁴, and jussive conjugations, which clearly combine aspect and tense with other categories complicating the picture for our present purpose, the second challenge, which I would like to address in this paper, is to account for the various pragmatic functions regularly taken on by most of the Wolof conjugations along with their temporal readings, be it in narration (where, for instance, the Perfect contrasts with the Zero-tense in spite of an apparently identical aspecto-temporal sense), in dialogue (e.g. Perfect used for a decisive assertion adding no new information to the referred event) or in clause chaining (see Robert 2010a for details), and discourse structuring. The term 'pragmatic' is used here in a broad sense to cover all the non-temporal functions of these conjugations. Remarkably, these rarely described functions all have scope beyond the internal structure of the clausal event: they may cover inter-clausal semantics, but also subjective dimensions such as appreciative

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⁴ A detailed analysis of the various functions of the focusing conjugations in discourse can be found in Robert (1991 and 2010b).

modality or surprise on the part of the speaker or even various argumentative values in dialogue, reflecting stance taking and communicative force in interaction.

How do these pragmatic functions relate to the temporal ones? What should be attributed to the core meaning of the conjugation and what to the context? How do the two interact? The objective of this chapter is both descriptive and theoretical. It aims first to investigate these pragmatic functions and values of the Wolof (non-focusing) verbal forms and describe their contexts of use. Next, it provides a unified analysis of the different usages of a same conjugation while accounting for their contextual diversity. The issue is to bring to light the mechanisms that regulate the contextual functions and interpretations that a given TAM marker may take on. The new concept of speaker's viewpoint, which will be introduced in this chapter for the analysis of the Wolof verbal system, should be applicable to other languages. For space reasons, the detailed case study focuses on two paradigms in the unmarked perfective form, the Zero-tense and the Perfect. They have been selected because both the diversity of their uses and the way they contrast with each other make them good candidates to introduce the speaker's viewpoint as an operative concept for analyzing the varying uses of TAM markers. Furthermore, the Zero-tense is a crosslinguistically widespread form, in Africa in particular but also beyond (e.g. across the Americas and in Oceanic languages), whose various functions require a more integrative analysis. The detailed analysis of the Zero-tense and the Perfect will allow me then to briefly account for the subjective uses of two other TAM markers in Wolof.

This chapter is structured as follows. Section (9.2) presents in detail the most challenging conjugation, the Zero-tense, which can, at first blush, hardly be defined otherwise than as a mere perfective but actually displays the most diverse uses in discourse (9.2.1). A unifying analysis is proposed (9.2.2.1) along with its theoretical foundations (9.2.2.2) based on a new functional definition of utterance and assertion, involving the speaker's viewpoint as a founding parameter. The framework sketched in this key section (9.2.2.2) is later used to analyze the entire Wolof verbal system and will be shown to be equally applicable to other languages. The different uses of the Zero-tense are then reviewed according to the proposed definition and its various contexts of usage (9.2.3), which finally allows for a synthetic characterization of its various discourse functions (9.2.4). With the Zero-tense, the cardinal role of the speaker's viewpoint is revealed in absentia, resulting here in a specific type of nonfiniteness. The next section (9.3) is devoted to the study of the Perfect, which clearly contrasts with the Zero-tense in this respect, as shown by their alternating uses in tales (9.3.1), thus confirming the importance of the speaker's viewpoint in the definition of the Perfect (9.3.2.). This renewed definition can account for the subjective uses of this aspectual marker (9.3.3). Drawing on these analyses, a last section (9.4) is devoted to a brief illustration of the role of the speaker's viewpoint in the subjective uses of two other TAM markers, the Presentative (9.4.1) and the Imperfective suffix (9.4.2), before concluding on the new avenues opened by this study on Wolof TAM markers for further crosslinguistic investigation (9.5). The data come from a corpus study of various texts, completed by elicitation. For details, see Appendix 2 on Corpus and data references.

9.2 The Zero-tense: a predicative marker seeking for a frame of reference

As indicated above, in Wolof, all the primary conjugations share an unmarked perfective value using the speech moment as tense locus, which results in a past or present reading depending on the verb type. The Zero-tense conjugation stands out from the other conjugations first because of its unique temporal behavior. The Zero-tense predicate may have past (1) or irrealis meanings (2), but also general present or future readings, as we will see in (9) and (10) below, independently of the verb type.

- (1) Kii, dégg nga li **mu** la wax.

 DEM hear PRF.2SG REL ZERO.3SG O.2SG talk

 'That [girl], you heard what she **said** to you.' [XSW]
- (2) **Boo**⁵ ko topp-ee, bu ëllëg-ee, when:zero.2sg 0.3sGfollow-ANTER to.morrow-ANTER when lu Ø la dal, ko def sa yaa bopp han! REL ZERO.3SG 0.2sGreach FOCS.2SG 0.3SG do your head **PTCL** 'If you **follow** her, in the future, whatever **happens** to you will be your own fault!' [XSW]

As visible in the relative clause in (2) as well as in (3) below, the Zero-tense has a variant in the form of zero marking for both third singular $(mu\sim \emptyset)$ and plural $(\tilde{n}u\sim \emptyset)$. This zero variant is used when the subject function is already conveyed by another constituent, be it lexical, as Kumba in (3), or pronominal, as the relative pronoun Iu in (2). On the distribution of these two variants (zero vs. full form), see Robert (2011).

The specific temporal behavior of the Zero-tense was analyzed in Robert (1991; 2016) as the result of a lack of temporal anchoring. From an aspectual point of view, the verb is minimally specified and conveys no internal structuring. In fact, this characterization corresponds to the standard definition of perfectivity, which 'indicates the view of a situation as a single whole, without distinction of the various separate phases that make up that situation' (Comrie 1976: 16). Therefore, the Wolof Zero-tense corresponds to a standard perfective marker and a tenseless conjugation whose temporal value depends on its context of use. This feature could be considered a defining property for the Zero-tense inside the otherwise tensed verbal system. However, this characterization, as such, does not make it possible to account for the puzzling diversity of its functions. The issue can also be rephrased as follows: what does a lack of temporal anchoring mean for a conjugation belonging to a tensed verbal system? What kind of reduced finiteness is at play here?

9.2.1 The Zero-tense puzzle

The puzzle is first a syntactic one. The Zero-tense has two prototypical functions which, at first glance, appear completely contradictory. On the one hand, this conjugation is the prototypical narrative mood, used in syntactically independent clauses in tales and historical narratives, as

⁵ In conditional and relative clauses where the Zero-tense 2sG marker fuses with the final -u of the subordinating morphem, an -oo fused form appears, probably originating from an archaic -a variant for 2sG (see Pozdniakov and Segerer 2004: 154). Minor discrepancies for narrative forms in subordinating uses are also reported in other languages by Carlson (1992).

exemplified in (3). On the other hand, it can be considered the prototypical subordinating mood in Wolof since it is required with most subordinating conjunctions, as in the relative and temporal clauses of (1) and (2) above. It is also the only conjugation used to mark clause subordination without any subordinating morpheme, as in (4) below.

Kumba def (3) Ø ko ci biir Ø dëbb, gënn, Kumba ZERO.3SG do 0.3sGbelly pound LOC mortar ZERO.3SG gënn gi Ø fees dell ZERO.3SG be.full IDEOPH mortar DEF 'Kumba put it [the grain] in the mortar, she pounded it, the mortar filled up (with

zero.3sg die

(4) Dafa ko fetal, **mu** dee.

shoot

couscous).' [T: 27]

FOCV.3SG 0.3SG

These well known functions of this conjugation have sometimes puzzled linguists working on Wolof, which resulted in hesitation on its labelling: Narrative (the most common label) Minimal, Amodal, or Aorist and Null tense, two other labels tentatively used by myself but obviously confusing to readers. I started with its Narrative traditional label, also used in descriptions of many other languages; however, since this label does not do justice to its various uses, I shall now call it Zero-tense.

A detailed study of its uses in discourse (Robert 1991; 2010a) reveals that the puzzle is in fact even greater. The various uses and functions I have found are summarized in Table 9.4 and will be further exemplified in section 9.2.3.

Table 9.4 The various uses of Zero-tense in Wolof

In independent clauses

- as narrative agrist (i.e. for the main event line) in tales and historical narrations
- in procedural texts
- in proverbs
- for stage directions
- in directive clauses
- in echo-questions
- in *wh*-questions

As a subordinating mood

without a subordinating morpheme :

- in purpose and result clauses
- in complement clauses

with a subordinating morpheme :

- mandatory in relative, temporal and conditional clauses
- precluded in complement and causal clauses

^{&#}x27;He shot him therefore he is dead.'

9.2.2 A unifying analysis and its theoretical background

9.2.2.1 The unifying definition of Zero-tense

In previous works (Robert 1991; 2010a; 2016), I provided a unifying analysis for the Zero-tense on which I am going to elaborate here to address the current issue. In general terms, the Zero-tense can be characterized as a minimally specified predicative marker lacking some of the specifications necessary to make it a full-fledged assertion. Its various functions result from the different contextual configurations that provide the missing specifications.

The precise definition of the Zero-tense comprises three related points leading to a defining contextual dependency:

- The Zero-tense indicates that the process is located relative to an unspecified situation. This means that, with the Zero-tense, the verb is endowed with the properties of a predicative operator (as all other conjugations are) but the predicated event is not located in time, nor is the speaker committed to the truth of it⁶: the Zero-tense clause lacks a viewpoint defining its temporal and assertive specifications.
- However, like all other predicates, the Zero-tense clause is expected to be endorsed and temporally located in order to constitute a speech act and a full-fledged assertion. Therefore the Zero-tense clause must be located via an extra-clausal locator specifying in which situation the Zero-tense clause is validated (i.e. located and true); otherwise the utterance is incomplete. In itself, the Zero-tense clause is not only lacking a frame-setting, it is not a full-fledged assertion. This extra-clausal element, which I call a situational locator, functions as an anchoring point and discursive landmark for the Zero-tense clause, and supplies it with the missing specifications.
- As a corollary, there is a necessary and sufficient link between the clause containing the Zero-tense and its situational locator, together constituting a complete assertion and valid utterance: the specification of the locator triggers the validation of the Zero-tense clause, but the truth value of the Zero-tense clause depends on its locator. This specific link between the Zero-tense clause and its locator is of a modal nature, belonging to the root modality of necessity.

The need for an extra-clausal locator providing the missing specifications and its special relationship with the Zero-tense clause can explain the various functions of this conjugation, depending on the contextual locator, as I will demonstrate. The contextual conditioning and the pragmatic outcomes are presented in section 9.2.3. However, before starting this detailed description, some theoretical clarification is in order.

9.2.2.2 Theoretical foundations: the role of the speaker's viewpoint in utterance and assertion

The theoretical foundations of my analysis converge with various models grounded in cognitive linguistics that have been used to analyze similar verbal forms found in other languages. For instance, in Payne and Shirtz's (2015) volume on the role of aspect in discourse

⁶ In this view, the label Amodal for the Zero-tense is appropriately used by Diouf (2003: 36) in his chart of the Wolof conjugations.

structuring (with a special focus on narratives), Fauconnier's model of Mental spaces (1994) is used by Payne (2015) to constrast the role of the Maa Zero-tense with that of the Perfect in discourse structuring, and also by Paterson (2015) to analyze the narrative uses of the Bare Verb in Ut-Ma'in; Crane (2015) uses Botne and Kerschners (2008) model to account for the distinctive uses of the Bare form vs. the inflected forms in Totela; Seidel (2015) refers to Dinsmore (1991) for explaining the constrasting uses of the narrative forms and various other past forms in Nalu and Yeyi. For a synthetic presentation of these frameworks and their relevance for these analyses, see Payne (2015: 16-17). Based on these various models, the Wolof Zero-tense can be viewed as a predicative form devoid of the function of space builder (Fauconnier 1994) or requiring a previous frame-setting form, according to Dinsmore's (1991) 'construct and contextualize pattern' for narratives. However, such analyses, focusing on the use of these forms in narratives, fail to provide a unified account to all the functions of the Wolof Zero-tense, as presented in Table 9.4 above.

The main theoretical contribution of my unifying analysis lies in a new functional definition of utterance and assertion which includes the speaker's viewpoint as a founding parameter in language use. This systematization is again consistent with some central tenets of cognitive linguistics (in particular those put forth by Langacker 1991; Talmy 2000; Croft 2007), but the speaker's viewpoint is not defined as a key operative concept for all linguistic utterances in the cognitive models I am aware of. However, it does occupy a central position in works on language in interaction, in particular by Du Bois (2007).

This innovative contribution draws on Culioli's theory of enunciation, a.k.a an utterercentered approach (e.g. Culioli 1990, 1995; Bouscaren et al. 1992; Groussier 2000). My presentation of this very elaborate model will be limited to the points relevant to the purpose of my study. These are occasionally reformulated in terms that allow them to be linked to more familiar models. Culioli, like Du Bois (2007: 145-6), defines the utterance (énoncé in French) as the situated realization of language in use, in contrast to the sentence, which is an abstract linguistic structure detached from any anchoring in a specific context of use. In addition, a cardinal role is attributed to the speech situation (situation d'énonciation) for situating (locating in Culioli's terms) the utterance, that is to say for providing the sentence with the reference frame that makes it an utterance. This specific framing regulates the choice of the linguistic markers in context, in particular the TAM and deictic ones. For instance, out of context, an apple is on the table is a grammatical sentence but it is rather difficult to imagine the situation in which it could be uttered. In fact, one would probably say 'there is an apple on the table', in which there is refers to the speech situation (Bouscaren et al. 1992: 1), thus making this sentence a well-formed utterance. In contrast, an apple is a fruit does not need an additional deictic marker in any context of use because the English present tense is compatible with the gnomic interpretation induced by its combination with the two indefinite articles in this construction. The surrounding discourse will then specify the discourse function of the utterance in relation to the speech situation. In Wolof, these two utterances would require a change of conjugation because the two types of present (current vs. general) involved in the different contexts are encoded in two different verb forms.

On this point, Culioli brings a groundbreaking contribution through what I shall call an extended conception of deixis, which includes the speaker's viewpoint in the deictic coordinates with a systematization of its grounding or framing role in utterances and

assertion. The speech situation is conceived of not only as the reference frame for the time and place of the utterance (*hic et nunc*), as assumed by most models mentioned above, but also as the space of the speech acts where the speaker (*ego*) expresses a viewpoint and takes a stance through his/her commitment to the predicated event or state of affairs. The speaker's viewpoint functions as the source of the endorsement of the utterance, and defines its assertiveness in a pragmatic sense (cf. Lambrecht 1994: 51-64). By saying *'John is home'*, a speaker does not express a belief but makes a claim profiling this utterance as true at the time of speech from their point of view. This operation of endorsement is called assertion.

For Langacker, the circumstances of the speech event are also thought of as defining a 'viewing frame' (1991: 441), but he does not operationalize and systematize it as a grounding frame for utterances with the two parameters⁷ defined by Culioli. In particular, the speaker's viewpoint is not explicitly defined nor is its assertive role. For Culioli, the speaker's viewpoint is present in every assertion and must be specified in any utterance. However, it may be specified through various (language-specific) means and take on different values, e.g. conveying modal distance, epistemic evaluation, or appreciation, or considering other points of view and possibilities. The speaker may also make it clear that their utterance does not reflect their personal point of view, using dedicated TAM markers such as the conditionals used in French by journalists for reported news they cannot endorse, as in Le president serait en déplacement aux Pays-bas (lit. 'The president would be on a trip to the Netherlands' meaning 'The president is reported to be on a trip in Netherlands'). In this assertion, the speaker's commitment is modalized. In this framework, assertion is conceived of as the first type of modality and the speaker's commitment involved in a plain statement as its minimal degree, that is, a claim about its mere factuality. The main function of the TAM markers is to encode the point of view of the speaker, along with the time of speech as the absolute origin of the temporal specifications. In tensed languages, the point of view involved in a plain statement is commonly fused with the temporal specifications of the TAM markers used for the indicative mood. That is why, most of the time, its modal component goes unnoticed by linguists. Culioli's approach makes it possible to both distinguish and link together assertion, mood and modality along with tense. Whatever its value, the speaker's commitment must be specified for a sentence to become a well-formed utterance.

The time of speech (T_0) and the point of view of the speaker (S_0) are functional vantage points rather than physical entities. That is what makes it possible for the speaker to 'decouple the deictic center from the here-and-now', as in the use of historical present (Langacker 1991: 267) or historical futures, which are common in the French biographic genre. More broadly, the speech situation (Sit_0), construed with the spatio-temporal (T_0) and subjective (S_0) parameters, provides the cardinal reference frame for a sentence in context and the basis on which the absolute or relative coordinate systems of tense and modality are specified, so that the event and the context in which it happens (Sit_X and its time T_X and subject S_X) can be situated (located in Culioli's terms). According to this model again, the speech situation is also the default reference frame of any utterance (the base space in Fauconnier's (1994) approach). Its permanent activation in discourse explains, for instance, why when a surgeon says 'lancet', even without further specification, this utterance is interpreted with the meaning 'I want a lancet here and now'.

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⁷ This remark also applies to the Mental Spaces model (Fauconnier 1994) despite its overall convergence with Cuioli's model.

Culioli's framework allows for a more precise definition of the Zero-tense and its general characterization as indicating that the process is located with respect to an unspecified situation. The missing specifications are those of the cardinal speech situation defined by the time of speech and the speaker's endorsement. This brief overview of the theoretical foundations of my definition of the Zero-tense was necessary to support the detailed account of its different functions, depending on its contextual locator.

9.2.3 Integrating the various functions of Zero-tense and their contextual conditioning

This section discusses the integration of the Zero-tense clause and its contextual locator (leading to various usage types of the Zero-tense), going from minimal to maximum syntactic integration of the two.

9.2.3.1 Independent uses and situational dependency

A key finding for my analysis of the Zero-tense clause as lacking temporal and assertive specifications lies in the constraints attested on its syntactically independent uses. In narratives, the Zero-tense clause never appears first: there must be a previous clause with a tensed conjugation defining the situational context of the narration. At the beginning of folktales, for instance, there is always an introductory (often impersonal) sentence using another conjugation (often a Verb focus) bearing a past suffix (-oon), used to define the spatio-temporal frame of the narration, locating it in a time prior to and, more precisely, disconnected from the speech situation, as in (5)a. This sentence is the beginning of the tale *The two Kumba* from which example (3) above was taken.

- (5) a Dafa Ø jabar. am-oon kenn nit ku am-oon ñaari FOCV.3SG have-PST ZERO.3SG one person REL have-pst two:conn spouse '(Once upon a time) there was a man who had two wives'.
 - b Ku Ø nekk ci ñoom Ø am jenn doom ju jigéén. REL zero.3sg be.located LOC PRO.3PL ZERO.3SG have one child woman 'Each of them had a daughter'.
 - c Yàlla Ø Ø def **mu** am jenn jabar ju Ø dee God zero.3sg do ZERO.3SG have one spouse ZERO.3SG die ZERO.3SG bàyyi fi doom-am. leave here child-poss.3sg

'Allah caused one of the women to die and leave her daughter.' [T: 25]

As is visible in this example, after the introductory sentence the narration proceeds with the Zero-tense, not only for subordinate clauses (e.g. the subject relative clause in (b) and the object complement clause in (c)) but also for the independent clauses on the 'main event line' (Labov and Waletzky 1967), that is, the temporally sequenced clauses describing the story events. In Wolof, clause chaining on the main event line is governed by the following

mechanism⁸. The first Zero-tense main clause refers anaphorically to the situational context specified in the introductory sentence, just as a relative pronoun refers to its antecedent, except that the dependency between the two clauses is not a syntactic one but a situational or frame-setting one. That is what I have called situational anaphora (Robert 2010a). Situational anaphora constitute a specific type of discourse dependency corresponding to both temporal anaphora and an assertive dependency of a syntactically independent clause vis-à-vis a preceding one. They typically appear in tales and historical narratives whose truth value does not depend on the speaker.

In tales, the situational anaphora go on through the narrative out of the initial anchoring by the tensed conjugation. The temporal anchoring point is here preconstructed in the discourse. In this case, events are not only temporally chained and happening independently from the speaker. Due to the necessary and sufficient link between the clause containing the Zero-tense and its locator, and to the lack of commitment on the part of the speaker, all the Zero-tense events follow one another as a necessary and inescapable chain of events, typical of historical narration.

Another form of the same modality is visible in the next independent uses of the Zero-tense where it takes on different functions through different contextual conditioning. In the next examples, the predicated event is situated in an irrealis situation through various means. In these cases, the Zero-tense appears again in a syntactically independent (or main) clause but after a contextual locator in the form of a preceding irrealis clause. This irrealis anchoring point can be a conditional (6), a future (7) or a generic clause as in (9) and (10) below, or even a mere obstacle in the situation of speech that the speaker wants to clear up (8). In this case, the Zero-tense event must happen as soon as the framing context makes it possible. In all of these examples, the commitment of the speaker lies only in this particular cause and effect relationship between two events. In interactional contexts, the modality of necessity takes on a directive (jussive) function.

- (6) Su **nu** bañ-ee, yow, **nga** def ko! if ZERO.3PL refuse-ANTER⁹ PRO.2SG ZERO.2SG do O.3SG 'If they refuse to do it, you, just do it (yourself)!'
- (7) Context: A marabout gives instructions to his client in order to get a child Supp-al ganaar. Boo togg-ee ba suuf Ø sedd, make.soup-IMP chicken when:zero.2sg cook-ANTER until sand ZERO.3SG be.cool nga iox iëkkër reer ci ba suur... sa have.dinner LOC.PART until ZERO.2SG give POSS.2SG husband ZERO.3SG be.satiated 'Prepare some chicken soup. When you have finished cooking and the sand has cooled down, take your husband and have him fill himself with it ... [XCL]
- (8) Context: on a bus (this need not be said if the exit is clear)

⁸ This definition can be viewed as a characterization, for Wolof narratives, of the temporal juncture defined by Labov and Waletzky (ibid.).

⁹ Two suffixes are used in temporal and conditional clauses to specifyy the temporal relation of the adverbial clause to its main clause (Perrin 2008: 83-4): *-ee* for precedence (anteriority) vs. *-y* for simultaneity as in (9).

Ma wacc fi!

ZERO.1SG get.off here

'Let me get off here!' [SP]

The use of Zero-tense in procedural texts relies on the same initial frame-setting and results in a comparable modal value. In the procedural genre, however, the instructions are generally given in the second person and the instructions take on a gnomic value along with the deontic one, out of the initial anchoring by a generic temporal clause (using the *bu* morpheme)¹⁰ and an imperfective Verb Focus in the main clause. This frame setting is comparable to that in narratives, except that it is not a past one but a generic one (which is another kind of irrealis one). Such texts can be paraphrased as follows: 'if/when ever you want to get this (frame-setting), you have to do that (imperfective Verb focus in generic use); then do this (Zero-tense), do that (Zero-tense). When it is ready, do that, etc. (Zero-tense)'. Here again, the Zero-tense is used for chaining events, but the generic framing and the second person produce this procedural version of necessity in their chaining. This is illustrated in the beginning of the *domodaa*¹¹ recipe in (9).

(9)Boo-y domodaa, jén togg danga-y saaf sa sa when:zero.2sg-IPFV cook POSS. 2SG sauce.SP FOCV. 2SG-IPFV POSS. 2SG fish fry ba mu baax, teg; rósi géjj... nga nga sa until zero.3sg be.good zero.2sg put zero.2sg brown dry.fish POSS. 2SG 'When you prepare your domodaa, you fry your fish properly, you put aside; (then) you **brown** your dry fish...'

As for the other syntactically independent uses, the Zero-tense is found in discourse in specific utterances such as proverbs or stage directions. These sentences can be described as general or a priori statements. In this case, the locator is defined by the context of use. More specifically, proverbs (10) are gnomic statements used by the speaker in order to illustrate a particular situation evoked in a preceding statement. By backing up his/her statement by a general rule (conveyed by the proverb and its gnomic meaning), the speaker reinforces the previous assertion and strengthens its illocutionary force. In contrast, in stage directions (11), the Zero-tense clause depends entirely on the performance for receiving spatio-temporal specifications. In both cases, a deontic component of the Zero-tense is visible, for the proverbs in their gnomic value, for the stage directions in their prescriptive aspect indicating what must be performed.

(10) Ku^{12} \varnothing muñ \varnothing muuñ. REL ZERO.3SG be.patient ZERO.3SG smile 'The one who is patient will smile.' (Patience is rewarded) [XCL: 2]

(11) Stage direction: (Nu dégg ku-∅-y fëgg)

¹⁰ On temporal and conditional clauses, see Perrin (2008) for more details.

¹¹ *Domodaa* is a thick tomato sauce that is eaten with white rice. My special thanks go to Jean-Léopold Diouf and his wife for giving me this recipe.

¹² On the -*u* used in the formation of both the conditional (6) and temporal (7)-(8) subordinators, and the indefinite relative pronoun (10), one may refer to Robert (2006). However, the two types of clause should be distinguished: the headless relative clause is the subject of the main verb in (10) not the locator of the event.

ZERO.1PL hear REL- ZERO.3SG-IPFV knock (someone is heard knocking)

Móodu: - Yegsil!

arrive:VEN:IMP

Moodu (a character): 'Come in!' [XCL: 25]

9.2.3.2 Interrogative and assertive dependency

The use of the Zero-tense in interrogatives represents an intermediary type of dependency between the independent and the subordinated uses of this conjugation, with a salient modal and interactional component. Two cases can be distinguished, echo-questions and *wh*-questions.

The lack of commitment on the part of the speaker stands out very clearly in the use of the Zero-tense in echo-questions (12). In this specific discourse chaining, the locator is a previous statement (explicitly or indirectly) made by the interlocutor; for instance, in (12), the speaker was previously invited to return the money. The function of the Zero-tense in the new utterance made by the speaker is to question the validation of this previous assertion and its consequences by cancelling the speaker's commitment in the turn-taking: the clause is disasserted and the previous assertion is suspended. The pragmatic function of the Zero-tense clause is then a request for confirmation by which the speaker expresses disbelief or disagreement, as in (12).

(12) Kon ma delloo la xaalis bi? so zero.1sg give.back o.2sg money DEF '(half-heartedly) Must I really give you the money back?' [XCL: 29]

In the same way, in wh-questions the Zero-tense takes on an interrogative function which is the ultimate manifestation of the speaker's lack of commitment in syntactically independent clauses. Thanks to the interrogative marker, the speaker calls on the interlocutor for further specification regarding the predicated event in order to establish a valid statement and a complete utterance. I call this suspensive value an assertive dependency. This is the case in the wh-questions where the Zero-tense is obligatory with the question markers of the -u series (ku 'who', lu 'what', fu 'where', nu 'how'), as exemplified in (13) and (14). The lack of spatial location conveyed by the -u suffix (see Robert 2006) aligns here with the lack of situational anchoring of the Zero-tense.

- (13) Nu **mu** sant? how zero.3sg be.named 'What's his name?'
- (14) Wóy, man fu ma jëm?

 ITJ PRO.1SG where ZERO.1SG head.for

 'Good God! Whatever is happening to me?' (lit.: where I am bound for?) [XCL: 72]

This use of the Zero-tense for interrogation illustrates the framing role of the speech situation in discourse in an inter-subjective version.

9.2.3.3 Subordination: the syntactic integration of the locator

Finally, the proposed analysis of the Zero-tense provides a straightforward rationale for its prototypical function as a subordinating mood. The specificity of these subordinate uses lies in the tighter integration of the Zero-tense clause and its locator in one and the same sentence. In these cases, the Zero-tense clause depends on a main clause using a tensed conjugation and conveying the situational anchoring of the sentence. The link between the Zero-tense clause and its locator takes the form of various types of syntactic dependency. Two formal cases may be first distinguished: those involving a subordinating conjunction, and those where there is no subordinator between the main predicate and the Zero-tense clause. The latter configuration will be referred to as a 'paratactic subordination', and the former as a hypotactic subordination. In spite of the juxtaposition of the two clauses, the first one is also a subordination according to the functional definition proposed by Cristofaro (2003). Elaborating on Langacker (1991: 436), Cristofaro defines subordination as an asymmetrical link between two events ('states of affairs' in her terminology) whereby the 'profile' of the main one overrides that of the dependent one, which is equivalent to saying that the dependent event is non-asserted while the main one is (pragmatically) asserted (Cristofaro 2003: 33). The chaining of two clauses with a Zero-tense verb coming second fits this definition perfectly given the definitional lack of assertive specifications for this conjugation and the framing role of the tensed conjugations. The semantics of the Zero-tense is at work in all types of subordinate clauses. However, its semantic contribution to the asymmetrical link between the two events is more salient in paractactic chaining, which I will start with. Here, the Zerotense is actually the one and only formal marker of the subordination.

The Zero-tense is the only conjugation used to mark clause subordination without any subordinating morpheme. In this case, the Zero-tense clause always comes second, after a main clause providing the situational anchoring and the assertional specifications of the complex clause. As a consequence of the main clause assertive profile overriding that of the Zero-tense, this particular relation between the Zero-tense clause and its locator results in a purposive or in a result clause, depending on the temporal and epistemic status of the main clause event. When the locator, i.e. the main clause event, is completed, the clause linking value of the Zero-tense is that of a result clause as in (15) or (4) above, whereas when the first event is irrealis, the Zero-tense clause takes on the meaning of a purposive clause, as in (16). Those two configurations confirm that the truth value of the Zero-tense clause depends on its locator (cf. 9.2.2.1). Nevertheless, in both cases, the relation between the protasis and the Zero-tense clause expresses again sequentiality and necessity: as soon as the first clause is asserted, the validation of the second clause is triggered.

- (15) Dafa sàcc, ñu kaaf ko. ZERO.3PL imprison steal 'He stole therefore he was put in jail.'
- (16) Jox ma ko, ma seet. give-(IMP) 13 0.1sG0.3sGzero.1sg look.at

¹³ The Imperative morpheme -aI is omitted when a clitic pronoun (as ma) comes next to the verb.

'Give it to me so that I can have a look.' [SP]

There is an obvious continuity between this use of the Zero-tense in paratactic subordination and that in narratives. Nevertheless, the two discourse profiles differ in several respects. In tales, the (quasi formulaic) introductory sentence defines the frame-setting of the whole narrative by specifiying it as disconnected from the speech situation (see 9.2.3.1). Thus, in the main event line, there is no asymmetry between the chained clauses: these are construed as syntactically independent ones. As such, a Zero-tense clause can, in turn, function as a main clause for a subordinate one, as illustrated in (5)b-c (9.2.3.1). These different features do not apply to the paratactic subordination. In discourse, because of the direct anchoring of the introductory clause in the speech situation (clearly visible in the jussive main clause in (16)), the situational anaphora cannot go beyond the next clause, the two are one and the same sentence. Moreover, outside the narrative genre, a Zero-tense clause cannot appear first in paratactic clause chaining (cf. Robert 2010a), nor can a Zero tense clause be the matrix of a subordinate one. The reason is obviously its lack of assertiveness.

If the locator is not a clause but a previous verb, the Zero-tense clause is embedded in a complex sentence as a prototypical complement clause (Payne 1997: 313). In this case, the Zero-tense clause occupies a nominal position with the syntactic role of an object (17) or, more rarely, a subject (18). This nominal functioning is made possible by the lack of assertive specifications of the Zero-tense. This configuration represents the tightest integration of the Zero-tense clause and its locator.

- (17) Dama bëgg-oon **ngeen** ànd-al maak sama doom. FOCV.1SG like-PST ZERO.2PL accompany-APPL 0.1SG:with POSS.1SG child 'I would like you to accompany my daughter for me.' [T: 169]
- (18) **Mu** takk jabar demaale-wul ci xel mi.

 ZERO.3SG marry spouse cooccur-NEG.3SG LOC mind DEF

 'To take a wife does not cross his mind' (lit. 'he takes a wife does not cross his mind')

Lastly, the Zero-tense is used in hypotactic subordination, i.e with a subordinating morpheme. Thanks to this intervening subordinator, other conjugations may be used as well. However, the distribution of the conjugations in hypotactic subordinaton is strictly regulated and motivated. On the one hand, the Zero-tense is mandatory in relative clauses (as in (1) and (5)) as well as in adverbial clauses, such as temporal and conditional clauses (as in (6) and (7)). Relative clauses add specification about a participant in the main clause event, and adverbial clauses about its circumstances. Both therefore elaborate on some components of the main clause event which is already temporally located and assertively specified through its finite verb form. Thanks to this Zero-tense form, there is a remarkable economy of situational framing in Wolof complex clauses (on syntagmatic economy in subordination, see Cristofaro 2003: 248-9). On the other hand, the Zero-tense is precluded in causal clauses, and also in complement clauses when introduced by a subordinating morpheme. The lack of commitment on the part of the speaker explains again why the Zero-tense is precluded in causal adverbial clauses: causal clauses express explanations endorsed by the speaker and therefore requires a tensed and assertive conjugation (for a convergent analysis based on crosslinguistic investigations, see Diessel and Hetterle (2011)). Therefore, in Wolof, any conjugation but the Zero-tense can be used.

In contrast to the paratactic complement clauses using the Zero-tense, the hypotactic complement clauses introduced by the complementizer *ne* are always in object position (after the main verb) and, more crucially, they cannot be used with a Zero-tense: they must be formed with a tensed and fully assertive conjugation¹⁴. The comparison between the two constructions for complement clauses (i.e. the hypotactic construction using tensed conjugations vs. the paratactic construction using the Zero-tense) is illustrated in the next paired examples (19).

```
(19) a Yaakaar naa ne tane nga
hope PRF. 1SG COMP be.better PRF. 2SG
'I hope (that) you are better'
```

```
b Yaakaar naa nga tane
hope PRF. 1SG ZERO.2SG be.better
'I hope you will be better'
```

With the *ne* complement clause and its Perfect conjugation in (a), the recovery of the ill person is presented as an already established fact (see 9.3.2 on the Perfect) that the speaker hopes to be confirmed, whereas with the paratactic Zero-tense clause and its lack of situational anchoring (b), the recovery exists only in the speaker's view and hope expressed by the main verb.

9.2.4 Synthesis: The various outcomes of a particular reduced finiteness

The various discourse functions of the Zero-tense rely on a common semantic configuration (detailed in 9.2.2.1). The Zero-tense functions as a predicative marker indicating that an event, viewed as a single whole, is validated provided that an extra-clausal locator specifies its temporal and assertive frame. The nature of the locator and its degree of integration in the utterance is the variable determining the various types of dependency and the different functions displayed by the Zero-tense clauses in context. These various configurations and their modal outcomes are schematized in Table 9.5.

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¹⁴ This constraint is in all probability related to the etymology of the Wolof complementizer, clearly resulting from the grammaticalization of the homophonic quotative verb, *ne* 'to say'.

Table 9.5 Zero-tense clauses and the syntactic integration of their locator

Syntactic integration	Nature of the locator	Nature of the dependency and functions
Min.	zero	assertive dependency (interrogation to addressee)
	addressee's assertion	dis-assertion (echo-question)
	contextual performance	illustrative proverb or stage directions
	different sentence	situational anaphora
	- past	- reconstructed consecution of history (narration)
	- irrealis	- directive, deontic modality
	- generic	- procedural discourse
\	different clause	subordination (purposive or result clause)
Max.	different verb	embedding (complement clause)

In pioneering work, Carlson (1992) has shown that verbal forms with the same paradoxical set of uses as the Zero-tense can be found in many African languages (often called narrative, sequential or consecutive, which display subordinating uses that are, most of the time, not related to the others) and provided a groundbreaking analysis for them. Carlson (1992: 83) is absolutely right when he first states that what a narrative (or sequential) tense signals is essentially: continue to assume the previous set of TAM values; and then that this function is best filled by a non-finite or not-fully-finite form, which in turn signals thematic dependence and continuity. However, as it stands, this definition does not account for the various uses of this verbal form because it does not define precisely in which way the narrative forms are not fully finite. What is not explicitly formulated in Carlson's analysis is the primary role of the speaker's viewpoint in the semantics of the TAM markers, defining not only an aspectual viewing and a temporal frame-setting but also the assertive force of the utterance. Including the lack of this feature (along with the lack of temporal anchoring) in the reduced finiteness of narrative forms is the only way to account for the various dependency configurations displayed by narrative tenses as described by Carlson.

The analysis proposed here allows for a more precise definition of the (semantically and morphologically) reduced finiteness of the Zero-tense verb phrase. The Zero-tense is neither a relative or neutral tense, nor a converb or a nominalization. In contrast to most non-finite forms (depending on language-specific rules), the Zero-tense can be used in a syntactically independent or main clause because this verbal form is a true predicative marker whose function is to predicate events and not to specify the circumstances of another event. As such, the Zero-tense profiles a situation in which the predicated event happened or should happen but this situation needs to be specified by an extra-clausal locator to define its frame of reference and to make it a speech act. As long as this locator is not specified, the Zero-tense clause remains a pending or suspended assertion. The specificity of its reduced finiteness lies in these combined features: the Zero-tense lacks temporal (T_0) and assertive (S_0) anchoring but it is a predicative marker, only waiting for these specifications in order to form a full-fledged assertion. Its various functions as well as its subjective or inter-subjective modal values represent the various contextual forms of the necessary and sufficient link between the Zero-tense clause and its locator in context.

The thematic continuity produced by the Zero-tense in narratives is the result of its dependency on an initial framing and anchoring in the speech act space. Its lack of

endorsement by the speaker produces a specific type of link between the narrated events and its modal component. With these specific properties, the Zero-tense illustrates the role of a mere perfective aspect in an overall tensed verbal system. Although specific, a comprehensive view of a process - which defines perfectivity - is also a type of viewing. In a language where aspect and tense are fused in the verbal system, the lack of temporal specifications goes together with a need for further specification of a viewpoint in discourse.

The cardinal role of the speaker's viewpoint in framing utterances and regulating the uses of aspectual markers was revealed *in absentia* through the various pragmatic effects of the Zerotense in discourse. The presence of this viewpoint in other TAM markers produces other modal outcomes, as will be shown in the next sections.

9.3. The Perfect and the modal outcomes of an aspectual viewpoint

The study of the alternating uses of the Perfect and the Zero-tense in narratives and tales will set the stage for a definition of the Perfect and further substantiate my general claim that the speaker's point of view is involved in all tensed conjugations.

9.3.1 The Perfect and the metadiscursive role of the speaker in narratives

In folktales, the Perfect (as opposed to the Zero-tense) is used when the narrator needs to step out of the inside perspective of the narration (illustrated in (b) in the next examples), either to take a broader temporal view for summarizing the next events or indicating how long they lasted (as in (20)b) or to express a personal judgment on the narrated events, which is often found at the end of the tale (as in (21)b).

- (20) a Kumba Ø aw ci yoon wi di jooy, di dem. Kumba zero.3sg go.through LOC IPFV.COP way DEF cry IPFV.COP go 'Kumba set off, in tears.'
 - b Dox **na** ñaari bëccëg ag ñaari guddi. walk PRF.3sG two: GEN day with two: GEN night 'She walked for two days and two nights.' [T: 25]
- (21) a Baay bi Ø né doom ji : '...' father DEF ZERO.3SG tell child DEF 'The father said to his son: « »'
 - b Góór wax na dëgg, ci àddina, ñaar ñoo fi am: γi LOC world FOCV.3PL man tell PRF.3SG truth two DEF here have dangay jéém mbaa ba. nga FOCV.2SG-IPFV try otherwise ZERO.2SG leave 'The old man said the truth, in the world there is only this alternative: either you try or you give up.' [T:41]

A comprehensive review of the various metadiscursive functions of the tensed conjugations in narratives is beyond the scope of this chapter. However their metadiscursive role in tales and the specific role of the Perfect for summarizing events or expressing a personal judgment are supported by the study by Seck (2009) on the structure of Wolof oral narratives. His goal

and focus are different from mine, yet altogether his analyses clearly confirm my point: for the main event line (the foreground of the narrative), the Zero-tense conjugation is used, whereas for the background sections, all other verb forms may appear, depending on the narrator's needs.

Thus, in narratives, the narrator switches from Zero-tense to Perfect (or to other tensed conjugations) for metadiscursive purposes. This alternation can be described as a going back and forth between two discourse levels corresponding to two different spaces in our model: the event space at the narrative level (where the events are located in a different time and situation) and the metadiscursive (or metanarrative) level anchored in the space of the speech acts. The tensed vs. non-tensed verb forms are the linguistic markers of these two different spaces and discourse levels. This pattern of alternation is schematized in Figure 9.1.

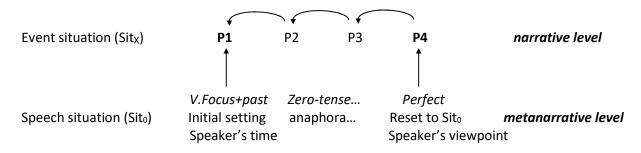


Figure 9.1 The role of conjugation switch in tales (P refers to predicates)

These metadiscursive functions of the Perfect confirm that this form conveys both (i) a temporal anchoring in the time of speech and (ii) a speaker's evaluation and stance with regard with the predicated events. This comparison between Perfect and Zero-tense provides the first foundations of the definition of the Perfect proposed in the next section (3.1). The subjective outcomes of the aspectual viewing implied in this definition will be illustrated by its uses in dialogue in 3.3.

9.3.2 Definition of the Wolof Perfect

In Wolof, the Perfect contrasts with the Zero-tense first as a tensed form using the speech moment as tense locus, just like all other conjugations do except for the Zero-tense. But a Perfect is more than a tensed perfective, in that, by definition, it involves two temporal phases and a resultative meaning. My previous studies of its usage (Robert 1991; 2010b; 2016) have led me to propose the following definition for the Wolof (present) perfect. The Perfect indicates that a process already known to be ongoing has henceforth reached its expected end-point (or term) so that there is nothing to add, no further variation: a stable resulting state has been reached at the time of speech.

My definition elaborates on Maslov's characterization of the perfect in terms of two temporal phases related as cause and effect (1988: 64) by including a previouly expected end-point in the definition. This was necessary to account for some discursive constraints on its use, as illustrated in (22). In order to inform an interlocutor that a woman has given birth, for instance, as an explanation of why she looks tired, the Verb focus conjugation is used, as in (22)a, rather than the Perfect. The Perfect in (22)b can only be used in order to announce that the expected

event has now happened. If this Perfect sentence were used without such a background, the interlocutor would certainly say that he did not even know that she was pregnant.

```
(22) a Dafa wasin.
FOCV.3SG give.birth
'She gave birth (that's why she's tired).'
b Wasin na.
give.birth PRF.3SG
'(There) she has given birth.'
```

The core information conveyed by the Perfect lies in the reaching of an expected endpoint at the time of speech. That is why the Perfect may be considered to have terminative focus. The previous temporal phase of the process and its expected endpoint function as the background of the construal of the Perfect¹⁵. Using Langacker's (1991) and Talmy's (2000) terminology, they are the base or ground on which the resulting state is profiled at the time of speech, as the figure. This configuration is schematized in Figure 9.2.

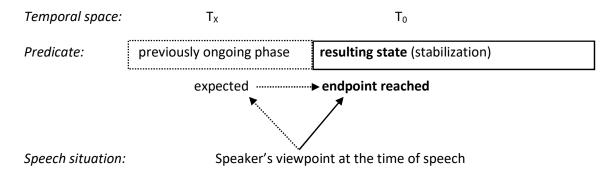


Figure 9.2 The Perfect's construal: aspectual phases, viewpoint and temporal anchoring

Depending on the framing context, emphasis can be put on one or another component of Perfect. The discursive chaining defines the windowing of attention (Talmy 2000: 257-309) and shapes the active zone (Langacker 1991: 454-57) of the Perfect's semantic schema in context. Emphasis can be put on the endpoint finally reached at the speech time, as in (22), on the completion of a durative process (the action is finished), on the quality of the resulting state, or on an aspecto-modal type of outcome of the completion, as exemplified in (26) below. In the latter case, the action does not need to be done anymore since it has already been done (see Robert 1991 for more detailed examples, summarized in Robert 2016). Therefore, the informational content of the Perfect clause seems to lie in the various aspecto-temporal components of the process. However, in discourse, the Perfect may also take on purely modal values and inter-subjective functions.

9.3.3 Subjective uses of the Perfect: from aspect to modality and stance

Various authors have shown that aspectual or tense markers may acquire a modal value. This semantic shift is often attributed to a diachronic process driven by subjectification (Traugott

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¹⁵ The background phase involved in the Perfect is mirrored in the morphology of this tense: unlike other affirmative conjugations, the inflectional markers are here postposed to the verbal lexeme, as illustrated in (22).

1995). However, the shared semantic features allowing this shift from temporal to modal readings are seldom described precisely, and sometimes even denied. For instance, Wright (1994) assumes that modal progressives are non-aspectual. Based on the Wolof case, my claim is again that the various readings (temporal vs. modal or subjective) of the Perfect clauses emerge from the different contextual conditioning of a same semantic schema.

For the Wolof Perfect, the main conditioning factor for a subjective vs. temporal reading is the verb type or Aktionsart. Dynamic verbs take place over time and have a temporal boundary, which may be intrinsic (in the case of accomplishments) or externally specified (in the case of activities) (see also Robert 2016). Due to this property, when used with a dynamic verb, the Perfect indicates that any temporal variation or instability is now eliminated: the expected endpoint, present in the background of this construal, has now been reached. It provides the classical attributes of perfect verb forms described above (9.3.2). However, in contrast to dynamic verbs, stative verbs do not unfold over time and cannot be segmented in temporal phases (there are 'compact', i.e. indivisible, according to Culioli's (1995: 145) categorization), which means that, temporally speaking, they can only be located (or situated) at a given moment and no temporal quantification is possible. This is why with the Perfect, as with all unmarked conjugations, a stative verb located at the time of speech has a present reading. According to the speaker's viewpoint, the property expressed by the stative verb can or cannot be predicated on the syntactic subject at a given time ('this man is/is not bad')¹⁶. With this type of verbs, various qualitative degrees may be distinguished for the process ('he is really/very/not very bad'), epistemic variations are also possible ('I have heard/am certain... that he is bad'), but it is impossible to split the stative process into different temporal phases. Therefore, for stative verbs, distinguishing between different temporal phases is equivalent to distinguishing between different moments of assertion. Due to the properties of these Aktionsarten, in the Perfect, the elimination of variation or instability corresponds to the elimination of the epistemic variation surrounding the predicate at the previous time (for more details see Robert 1991: 52-67). Taking this semantic conditioning into account, the conceptualization of the Perfect shown in Figure 9.2 can be reframed according to Figure 9.3 for stative verbs.

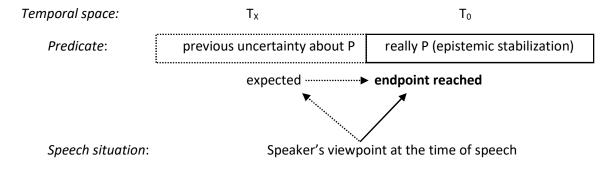


Figure 9.3 The Perfect's reading with stative verbs (P refers to the predicate)

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¹⁶ Wolof has no adjectives (McLaughlin 2004): qualification is expressed by stative verbs, e.g. *baax* 'to be good', *gumba* 'to be blind', *xonq* 'to be red' etc. These are true stative verbs: the verb *gumba* 'to be blind' can be used to designate a person who is blind from birth, *ñuul* 'to be black' for a black hen, etc. This semantic argument can be added to the necessary use of a causative suffix for a dynamic interpretation of stative verbs (cf Robert 1991 and 2016).

Considering the expected endpoint in the background, with stative verbs the Perfect indicates that, after a moment of uncertainty, there is now no more doubt over the assertion. This commitment on the part of the speaker can take on several contextual meanings (clarified when needed by the consultant's comments): expected conformity and relief (23), agreement of the speaker (24), polemic or decisive assertion (25).

(23) [a person who was looking for a rope of some length]

```
Buum bii gudd na.

rope DEM be.long PRF.3sG

'(It's all right), this rope is long (enough).' [meaning: here we are! at long last]
```

It is important to point out that, in Wolof, verbs expressing a quality are truly stative verbs, not derived stative verbs expressing the completion of a dynamic process. In (23), the rope is not long now because it has been lengthened, the rope is simply long enough for the intended purpose; the comparison is not between two phases of an unfolding process of lengthening, but between the previous need for a long rope (the background phase of the Perfect verb here) and the confirmation that the present rope meets the expectations. In (24), the Perfect contrasts again with Verb focus as in (22) but in a dialogue this time.

(24) [two people looking at a boubou (robe)]

```
A - Mbubb bii, dafa rafet.
boubou DEM FOCV.3SG be.beautiful
'This boubou is beautiful.'
```

B - Rafet na (de)! be.beautiful PRF.3SG PTCL

'This boubou is beautiful indeed' ~ 'it is definitely a beautiful one" [SP]

As usual with stative predicates, the Verb focus clause can appear on its own and corresponds to a mere statement (Robert 2010b). This use was already illustrated in (5), at the beginning of a tale. The Perfect is then used here to confirm the previous statement made by the interlocutor using the Verb Focus. This previous assertion functions as the preceding phase of the same process (P here), again confirming the aspectual preconstruction in the semantics of Perfect. Since the points of view of the two interlocutors are identical, the Perfect is used by the speaker to confirm that his point of view (validation of P) definitely confirms that of his interlocutor (previous phase of P). The next example (25) provides a significant contrast to (24), which can be explained in pragmatic terms.

(25) [At the end of a discussion where the speakers disagree]

```
Tàng na (de)!
be.hot PRF.3SG PTCL
```

'(I'm telling you), it is hot!' [consultant's comment: it is certain, there is no more discussion, there is nothing to be added, no comment, period].

In contrast to (24), the preceding context for (25) was that of a disagreement between the two interlocutors about the same process. So the previous phase of instablity (not P) corresponds here to the point of view of the interlocutor. Therefore, the conclusive affirmation of the speaker's point of view (P is validated) contradicting that of his interlocutor (not P) results in a polemic or decisive assertion. The translation and the gloss provided by the

consultant give a very explicit account of the shift from temporal to subjective reading with this stative verb. It is worth noting that in both cases, the previous phase of the process that is construed as currently relevant by means of the Perfect corresponds to the previously expressed point of view or position of the interlocutor on the process. Due to the dialogic context, the Perfect also takes on inter-subjective values here.

The contrast between (24) and (25) can be easily described using the stance triangle developed by Du Bois (2007). His model of stance encompasses three components in the same act of stance taking in a dialogue: (a) an object evaluated by two different subjects (i.e two interlocutors), (b) a positioning of each subject regarding this object, and (c) the alignment of the two speakers, that is the varying degrees to which their positions converge (or diverge). In (24) and (25), the two different phases of the same process are associated each with a position of one of the two interlocutors regarding the same evaluated object. I shall extend here Du Bois's definition of the stance object to the whole predicate or, more precisely, the whole predication. In (24), the stancetaker using the Perfect definitely aligns with his interlocutor (he agrees), whereas in (25), he definitely does not align, and ends the discussion by re-asserting his point of view as the expected endpoint that has been reached now. This remarkable correlation between stances and aspectual phases is schematized in Figure 9.4.

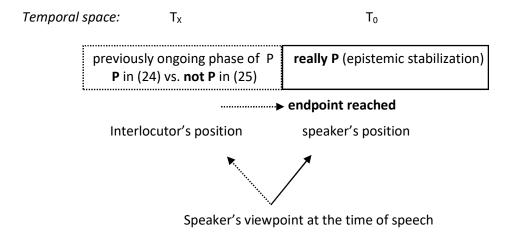


Figure 9.4 Perfect and stance taking in discourse (P refers to the predicated state)

This study has shown how the specific aspectual phasing of the perfect correlates with epistemic modality. When it is used in turn taking in dialogue, the Perfect takes on pragmatic functions associated with an argumentative strategy. This modal reading and inter-subjective function is particularly salient with the stative verbs whose actional properties prevent a temporal reading of the aspectual phases: these aspectual phases are necessarily transferred to the assertive domain. However, the subjective component producing these intersubjective values in language interaction is involved in the core semantics of the Perfect and also at work in its temporal readings with the dynamic verbs. This subjective component lies (i) in the specific viewpoint of the speaker spanning two different phases and moments of the same process at the speech moment, and (ii) in the previous expectation of an endpoint that is now evaluated as having been reached. These subjective components are more salient with the stative verbs because of their actional compactness. However, they are also present with dynamic verbs, as visible in particular in their 'already' meaning exemplified in (26). This sentence, often heard in Senegal, is a polite way for declining an alms request. The politeness

of this formula lies in the fact that the person, having already given alms, no longer has to do so. By exonerating the speaker of renewing his duty, this argument softens his refusal. It is an indirect way to align with the addressee.

(26) Sarax bi àgg na.

alms DEF arrive PRF.3SG

lit. 'The alms have (already) arrived'

That is 'I have already given [meaning: I won't give any more, I do not have to].' [SP]

Conversely, due to the context (a quarrel between a wife and her husband), the repeated use of the Perfect with a dynamic verb takes a brutal turn in (27): the speaker wants to end the discussion by presenting her husband's mistake as a definitely established fact. This use of the Perfect echoes the one exemplified with a stative verb in (25).

(27) Juum nga ha! juum nga dëgg-dëgg. make.mistake PRF.2SG PTCL make.mistake PRF.2SG truely 'You made a mistake! You really made a mistake.' [XSW]

So, the various uses of the Perfect confirm the presence of a subjective component in the definition of this conjugation.

9.4. Other facets of the speaker's viewpoint in aspectual morphemes

To both complete the investigation of the pragmatic functions of TAM markers in Wolof and show the explanatory power of this framework, this last section discusses the role of the speaker's viewpoint in two other TAM markers of this tensed verbal system, the Presentative and the Imperfective suffix.

9.4.1 The Presentative and the modal outcomes of a strictly temporal view

The Presentative shares the aspectual properties of the Zero-tense but differs from it in its temporal anchoring at the time of speech, which produces a present reading for all verb types. The Presentative is thus the true tensed perfective of the Wolof verbal system. This apparent simplicity is in fact deceptive. The combination of the global viewing with the strict temporal anchoring in the speech situation has remarkable modal outcomes which are easily accounted for with the proposed model of predication, including the speaker's point of view as a cardinal parameter of utterance.

The Presentative is used to indicate that the predicate comprehensively defines the current state of affairs at the time of speech. From the speaker's point of view, the boundaries of the event's situation (Sit_X) coincide with that of the speech situation (Sit_0). Hence its meaning of a current present, or, alternatively, of an imminent event for instantaneous processes (as in (29) below) or a recent one which has been updated, by being just witnessed by the speaker (as in (28) below). These temporal interpretations (as an imminent or a recent event) result from the impossibility for a punctual process to coincide fully and exactly with the speech situation (for more details, see Robert (1991; 2016)). This deictic component is confirmed by the

presence of a spatial deictic in this form, specifying whether the process is happening now in a place close vs. remote to the speaker's space: -i for proximal, -a for distal. This definition explains why the Presentative is typically used by reporters for live events such as comments on soccer games. Unlike the Perfect or the focusing conjugations, but in line with the Zerotense, there is no presupposition here, no previous ongoing process in the background, and also no previous foresight or expectation (the event is viewed globally, not as in progress): the process occurs at the time of speech and strictly defines the discourse situation. In other words, the speaker only reports what is going on at the time of speech in his/her (narrow or broad) deictic space. This strictly spatio-temporal commitment to the predicate represents a very specific point of view on the events, i.e. that of a mere witness, resulting in remarkable modal outcomes.

The Presentative is commonly used as an answer to a question about where a person is or what s/he is doing right now. In this case, the context specifies the spatio-temporal component of this conjugation as its active zone, the window of attention. Apart from these cases where the information conveyed by the Presentative is strictly locational or those where it is used by reporters for live events that the audience cannot see, why should the speaker describe to the addressee what is happening in a situation shared and witnessed by both of them? First of all, to indicate that the predicated event happens to him/her suddenly and, strictly speaking, unexpectedly¹⁷, hence the frequent mirative value taken on by the Presentative, as in (28). The focus of attention is then on the novelty of this event for the speaker: in this case, the active zone profiled by the context is this specific viewpoint of the speaker on the events that occur before his/her eyes, that of a mere witness of the state of affairs, which can be a good or a bad surprise.

(28) [a child is shocked by the bad behaviour of his brother who just beat him]

Mu ngi fekk ma-y nelaw, mu dóor ma!

PRST.3SG PRST:PROX find 0.1SG-IPFV sleep ZERO.3SG beat 0.1SG

'He finds me asleep and he hits me!'

In dialogue, this mirative value is generally associated with an intersubjective function, that of drawing the addressee's attention on the novelty of the situation. Unexpected events tend to be perceived as detrimental, so the Presentative clause also often expresses a warning as in (29).

(29) Jàppal xale bi, **mu ngi** daanu! catch: IMP.SG child DEF PRST.3SG PRST:PROX fall 'Hold the child, (can't you see that) he is about to fall!'

As a powerless witness of the event, the speaker calls on the addressee to intervene, to do something about what they are both witnessing. As speech acts, such utterances can be viewed as appeals to the addressee to align with the speaker's position (the event is unexpected and often perceived as detrimental), by reacting to the predicated event. This holds true for stative verbs verbs too¹⁸, and for the ones expressing quality in particular: in

¹⁷ For more details on the various uses of the Presentative, see Robert (1991: 165-197).

¹⁸ Stative verbs appear to be rarely used with the Presentative alone, as is also the case with the Zero-tense. This point is to be related to the constraints of using a compact process with a punctual viewing. However, they are

this case, the speaker uses the Presentative to single out the predicated property as hot news which the addressee should react to, as illustrated by the comment made by the consultant on (30)b. With quality verbs, the uses of Verb Focus and the Presentative are very similar to those of *ser* (for permanent or lasting attributes) and *estar* (for temporary states and locations) in Spanish (e.g. Comrie 1976: 105), as illustrated in (30)a and b. More specifically, in Wolof, the Presentative construes the predication of a property as a true event defining the current state of affairs.

```
(30) a Dafa rafet.

FOCV.3sG be.beautiful

She is beautiful. (plain statement or permanent property)
```

```
b Mu ngi rafet (de)!
PRST.3SG PRST:PROX be.beautiful PTCL
'(Look) she is beautiful! [meaning you should do something].'
```

Thus, with the Presentative, the main role of the speaker is to locate the process in the space and time of speech. A viewpoint is still present but it corresponds to a mere witnessing function: the speaker's commitment is limited to indicating that, in their view, the predicated event is what defines the speech situation, without any anticipation on their part. This can make it hot news for them and their addressee. The Presentative case confirms that S_0 (the speaker's viewpoint) and T_0 (the moment of speech) are correlated deictic coordinates that are always in play in any assertion, but their contributions can nevertheless be dissociated.

9.4.2 (Im)perfectivity and epistemic modality

The description of the Wolof Imperfective is limited here to the purposes of this study. For a comprehensive presentation, see Robert (1991: 257-81 and 2016: 201-14). In Wolof, imperfective forms are made by suffixing -y to the flectional part of basic conjugations (cf. section 9.1). This suffix preserves the general properties of the conjugations and their tense locus (the time of speech except for Zero-tense) but modifies their aspectual characteristics. Importantly, the Perfect is the only conjugation that cannot receive the Imperfective suffix (e.g *àgg na-y for (26) or *juum gna-y for (27)). I propose the following definition: the Imperfective indicates that the process is ongoing and that its endpoint has not yet been reached. This internal viewing of the process results in aspectual variation or instability. In this tensed verbal system, the most obvious effect of the Imperfective suffix is a temporal one: it changes the temporal value of dynamic verbs from past (with bare conjugations) to ongoing present as in (31).

(31) a Yaa tóx.
FOCS.2sG smoke
'You are the one who smoked.'

b Yaa-**y** tóx. FOCS.2SG-IPFV smoke

-

frequently found in paratactic structures expressing an unexpected contradiction between two events, as exemplified in (28). More details can be found in Robert (2010a).

'You are the one who is smoking.'

However, the comparison between the perfective and imperfective forms sharing the same temporal present value - i.e. for all verbs in the Presentative, and for stative verbs in all conjugations - reveals a modal dimension involved in this aspectual viewing when anchored in the speech time: this modal dimension is not present with the Zero-tense. Thus in the following example, the consultant's comment brings to light the epistemic differences between the perfective and imperfective Presentative; in (32)a the event is certain while in (32)b it remains uncertain.

```
(32) a Mu ngi dund. (perfective)
PRST.3SG PRST:PROX live
'He is alive.'
```

b Mu ngi-**y** dund. (imperfective)
PRST.3SG PRST:PROX-IPFV live

'He seems to still be alive (for the time being, apparently, let's hope it will last).'

In fact, these modal distinctions constitute the only difference between the perfective and imperfective forms for all conjugations (but Zero-tense) with stative verbs. The difference in meaning can be very subtle and has required fine-grained discussions with my consultants, following the elicitation method described in Robert (2004). Examples (33) and (34) highlight the distinctions between the certainty expressed by the perfective in (a) and connotations of uncertainty ('likely but not certain') or appreciative incompleteness ('almost but not really') visible in (b) for the imperfective forms.

- (33) a Picc bii moo mel ni ndobin bird DEM FOCS.3SG look.like as bird.SP 'This bird looks (definitely/indisputably) like a big calao.'
 - b Picc bii moo-y mel ni ndobin bird DEM FOCS.3SG-IPFV look.like as bird.SP 'This bird sort of looks like a big calao (to my mind, questionable)'
- (34) a Moo tolloog garab gi FOCS.3SG reach:with tree DEF 'He is as high as the tree.'
 - b Moo-y tolloog garab gi FOCS.3SG-IPFV reach:with tree DEF 'He is almost as high as the tree.'

The comparison between the two aspectual forms thus reveals a remarkable correlation between aspect and modality in a tensed system. On the one hand, epistemic stability goes along with perfectivity (the speaker is certain about his/her statement). On the other hand, the aspectual incompleteness of the process (or instability) conveyed by the Imperfective

results in a modal incompleteness corresponding either to epistemic instability or to an incomplete appreciation on the part of the speaker about his predication.

With imperfective forms, the shift from temporal to modal reading for compact (i.e indivisible) predicates (whether this compact character be due to the properties of the lexical verb or to that of the global viewing of the Presentative) parallels the one observed for Perfect (3.3). In both cases, this correlation between aspect and modality originates from the specific view of the speaker on two different phases of the same process at the time of speech: the speaker validates one phase at the time of speech, in relation to the other in the background. With the Perfect, the backgrounded phase was one of instability at a previous moment (hence the epistemic stabilization), whereas with the imperfective forms, the backgrounded phase is that of completeness and stabilization to come at a later time (hence the epistemic instability). This analysis explains why the Perfect cannot be suffixed with the imperfective marker, and this for all verb types: the epistemic instability of the Imperfective would contradict the epistemic stability of the Perfect.

Finally, it is worth noting that, just like with the Perfect, the correlation between aspect and modality in the semantics of the imperfective holds true for all verb types, though it is more salient with stative verbs. This correlation is visible, for instance, in the modal component of the possible future reading of the imperfective forms: in this case, the imperfective future refers to a likely future, contrasting with the predictive Future (Robert 2016: 219 sqq) expressed by an auxiliated form using the Perfect inflection, visible in Table 9.2. Lastly, the deontic or gnomic meaning taken on by the Imperfective suffix in combination with the Verb Focus in specific contexts is another possible modal outcome of this aspectual construal (ibid.: 210-1).

9.5. Conclusion: A functional brigde between TAM grammar and pragmatics

This study has proposed a unifying framework for predication and assertion in Wolof, whereby the speaker's viewpoint has proved to be a powerful tool to account for the various functions taken on by TAM markers in discourse, while maintaining a unitary definition for each of them. In this model the speech situation, with its spatio-temporal (T_0) and subjective (S_0) coordinates, provides the basis for the specification of the absolute or relative coordinate systems of tense and modality. The new definition of assertion as first degree of modality also allows us to conceive of the speech situation as the cardinal space of speech acts. Thus, the speech situation functions as the cardinal frame of reference for utterances in context but also as the default frame of reference, because it is permanently activated in the discourse as long as there is no linguistic marker indicating its disconnection. The systematic inclusion of the speaker's viewpoint as a one of the two parameters of the speech situation is, in my view, what was missing in existing cognitive-linguistic models. This concept allowed me to relate the temporal and modal readings of aspectual markers in an operative way, thus revealing some regular mechanisms connecting aspect, tense, modality and stance.

In this approach, the Presentative signaling a mere temporal and global view of the process, devoid of any foresight, makes the speaker a powerless witness of what is happening suddenly at the time of speech. This analysis explains the frequent mirative value and intersubjective

warning wrought by the Presentative. As for the Zero-tense, the other conjugation conveying a global view of the process in Wolof, the analysis of this predicative marker has revealed a new type of reduced finiteness. Its complete lack of deictic framing (regarding both temporal anchoring and speaker's viewpoint) makes it a pending assertion, which is nevertheless validated provided that an extra-clausal locator specifies its frame of reference. These particular ties between the Zero-tense clause and its locator result in various types of dependency according to the degree of integration of the two in context. This integration gradient comes with various modal values ranging from interrogative, directive and deontic modality, in dialogue or in procedural texts, to a specific modality of necessity connecting clauses in a sentence or events in a narrative.

The new characterization of finiteness as involving the two cardinal parameters of assertion, i.e. the spatio-temporal one and the subjective one, makes it possible to give an accurate account of a wider range of cross-linguistic phenomena. This model allows first to define the non-finite forms as a functional family rather than a group that stands in binary opposition with the finite forms. The various converbs, sequential, narrative or bare forms attested across languages (e.g. in Payne and Shirtz 2015) can be described as verbal forms where T_0 and S_0 are left unspecified or underspecified (depending on the language) and thus require contextual information to complete their situational and assertive anchoring. But the explanatory scope of this model extends further thanks to the possible decoupling of the two parameters T_0 and S_0 . The Presentative provides an illustration of a partial decoupling of the two: the point of view of the speaker (and therefore their commitment to the assertion) is actually reduced to their spatio-temporal anchoring in the speech situation. The speaker still expresses a point of view and a commitment to the truth of the event, and therefore the Presentative clause alone is a well-formed utterance. However, this particular view of the event singles it out and generally conveys a surprise or a warning. This analysis should be applicable, mutatis mutandis, to the various verbal forms that take on mirative values across languages.

Applied to the Perfect, this framework explains the regular shift from a temporal reading with dynamic verbs to a modal reading with stative verbs. The stricly modal reading of the latter is the result of a common image-schema mapped onto compact (i.e. indivisible) processes blocking any internal viewing of their temporal unfolding. This image-schema involves a hierarchical view of two aspectual phases of the same process (a previous unstable one and a stabilized one) and the validation, by the speaker, of the expected stabilization of the process at the time of speech. The fulfilled expectation results in an epistemic value of certainty for all verb types, which contrasts with the uncertainty conveyed by the Imperfective suffix. This regular correlation between aspectual and modal components thus reveals a homology between the temporal space of events and the space of the speech acts. In a broader perspective, this analysis provides a theoretical basis for the modal interpretation of stative predications in general. Moreover, in dialogue, the different aspectual phases can be associated with different positions of the interlocutors regarding the predicated event, resulting in different stances and various types of alignment between the two, associated with strong argumentative effects.

In sum, by operationalizing the speaker's viewpoint and the time of speech as the founding parameters of the space of the speech acts, this theoretical framework provides a matrix for an account of the various uses of Wolof TAM markers in context: these two parameters are

the source of the temporal and modal values of any utterance. The varying salience of the two for a given TAM marker is shaped by its context of use. By bridging TAM with stance, the speaker's viewpoint operationalized as a key concept in this model of assertion has the potential to account in a broader way for the various uses and functions of TAM markers across languages, and thus to integrate pragmatics, discourse functions, and language interaction more tightly into the analysis of these grammatical constructions.

Appendix 1: Abbreviations

Ø zero variant; ANTER anterior suffix; APPL applicative suffix; COMP complementizer; DEF definite determiner; DEM demonstrative; FOCS Subject-focus; FOCV Verb-focus; IDEOPH ideophone; IMP imperative; IPFV Imperfective suffix; LOC.PART locative/partitive pronoun; NP noun phrase; o object pronoun; POSS possessive; PROX proximal suffix (-i); PRST Presentative; PST past suffix; POSS possessive determiner; PTCL discourse particle; PRF Perfect; VEN venitive suffix; ZERO Zero-tense

Appendix 2: Corpus and data references

When not otherwise indicated, the data come from native-speaker elicitation, following the contextualizing method described in Robert (2004). Otherwise the following abbreviations are used for the various references:

- D: Jean-Léopold Diouf's dictionary (2003).
- SP: Spontaneous discourse taken down by the author in Dakar in 1985, 1986 and 2010.
- T: The anthology of traditional Wolof tales and mythological narratives edited by Kesteloot & Mbodj.
- XCL: The play Xët cig lëndëm, the manuscript of which was provided in 1985 by the Daniel Sorano Theater Company in Dakar.
- XSW: Xam sa waru gaar, a play from an educational TV program, by the ORTS (Office de Radiodiffusion-Télévision du Sénégal) in 1986.

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