

## **CHAPTER 8:**

### **Conclusion**

#### **8.0 Introduction**

This dissertation develops a mental space approach to tense, and to tense-aspect as a system, showing the important role which tense plays in the management and organization of discourse and in the cognitive construction process.<sup>127</sup> In the preceding chapters, we have investigated tense phenomena in discourse, in narrative, in embedded clauses of indirect speech, in embedded relative clauses, in conditional constructions, in pragmatic context and in “de-contextualized” sentences. The analysis developed in these chapters handles both discourse and sentence level phenomena, both canonical and non-canonical tense data in a unified, theory internal manner,

The purpose of this chapter is to provide a summary of the mental space account of tense-aspect presented and developed in chapters 3 through 7. This chapter summarizes the central claims of the analysis and situates the analysis in terms of its contribution to mental space theory and to the literature on tense. The structure of this chapter is as follows: Section 8.1 reviews the central feature of the model of tense proposed in this dissertation, the characterizations of the tense-aspect discourse links: {PRESENT, PAST, FUTURE, PERFECT, PROGRESSIVE, IMPERFECTIVE,

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<sup>127</sup> The approach to tense-aspect taken in this dissertation is an extension of work and ideas of Fauconnier (1985, etc...) and Dinsmore (1991).

PERFECTIVE}. Section 8.2 discusses the organization of temporal semantics in terms of time periods and local links between spaces. Section 8.3 gives a summary of the role which tense, as well as aspect, plays in the organization and management of discourse. Sections 8.4 through 8.9 give a summary of the ways in which the characterizations of tense-aspect and the discourse management roles played by tense-aspect have been used to account for a wide range of tense-aspect data. Section 8.10 reviews the findings of this dissertation in terms of tense in pragmatic context and discourse-narrative. The chapter and the dissertation conclude with section 8.11.

## 8.1 Tense-Aspect

The central feature of the proposed model of tense-aspect is a set of characterizations of the tense-aspect categories: {PRESENT, PAST, FUTURE, PERFECT, PROGRESSIVE, IMPERFECTIVE, PERFECTIVE}. These categories are cross-linguistic, discourse construction notions, which in the strongest possible claim are universal. Each tense-aspect category is a particular type of conceptual discourse link between spaces. These discourse links operate at the cognitive construction level, separate both from the real world and from language structure.

Each tense-aspect category issues a certain set of instructions to the language decoder about the space configuration to be built and the arrangement of {BASE, FOCUS, EVENT, V-POINT} over a set of spaces.<sup>128</sup> The tense categories {PAST,

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<sup>128</sup> The notions {BASE, FOCUS, EVENT, V-POINT} are theoretical, discourse construction primitives, notions based on work and ideas of Fauconnier and Dinsmore. These notions correspond roughly to similar types of notions which appear in the tense-aspect literature, as well as to informal notions which we have about discourse. See chapter 3 for a presentation of these concepts.

PRESENT, FUTURE} and the aspectual categories {PERFECT, PROGRESSIVE} establish local time connections between spaces. Tense categories also assign the FOCUS space a FACT/ PREDICTION status, and a status as PAST, PRESENT, or FUTURE in relation to some V-POINT. The combination of space partitioning and these discourse links allows the speaker to separate information, elements, situations and events in time, in epistemic distance, in status as FOCUS or non-FOCUS, and in status as FACT or PREDICTION.

The tense-aspect categories (i.e. discourse links) may combine together in various ways; a link or combination of links forms an *access path* to a target space. A particular type of access path may be encoded by the grammatical conventions of the language, mapping onto a particular, language-specific tense-aspect marker or set of markers.<sup>129</sup>

## 8.2 Temporal Semantics: Time Periods and Local Time Connections

Although links may be combined together, tense and tense-aspect operate fundamentally by local links between spaces. Among other things, the local nature of time connections accounts quite naturally for the use of the English Future Perfect and the French Futur Anterieur to encode events which are prior to ‘now’. The Future Perfect and Future Anterieur encode the combined links FUTURE PERFECT or FUTURE PAST. The FUTURE PREDICTION FOCUS space set up by the first link (FUTURE) serves as parent and V-POINT for the target space set up by the second link (PERFECT or PAST). Since the second link (PERFECT or PAST) sets up only a local time

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<sup>129</sup> Mapping, however, need not be directly one to one, and language specific markers need not follow the same linear order as the discourse links.

connection, the target space need only be prior to the parent V-POINT. Its relationship to 'now', to V-POINT/BASE is undefined, hence it may be prior, concurrent, or posterior to 'now'.

In this system, temporal semantics is handled in terms of time periods and local time connections between spaces. Time spaces, including PRESENT, PAST, and FUTURE spaces, may represent time periods of any size. This is particularly important for the analysis of the Present tense, where it encodes the link PRESENT. A PRESENT space represents a time period which canonically includes or is construed as including the V-POINT. However, a PRESENT space is not limited to the time or duration of the speech event, the current moment of consciousness, or to 'right now'. Because the PRESENT space does not necessarily represent a time period or temporal point which coincides with the time of speech, but instead may represent a time period of any size, a PRESENT event need not necessarily coincide with the current moment of speech. This motivates the use of the Present tense (PRESENT) for just prior events, for events or situations which coincide with 'now' but extend before and/or after, and for habitual and generic expressions, in which the event does not necessarily coincide with the time of speech.

### **8.3 Role of Tense-aspect in the Management and Organization of Discourse**

One of the central claims made in this dissertation is that tense plays a fundamental role in discourse management and organization. Tense-aspect markers give partial instructions for the dynamic construction of interconnected cognitive domains which takes place as the discourse interpretation process unfolds. The grammar of tense-

aspect is efficiently organized to give a maximum amount of information about the higher level discourse semantics and discourse organization.

Tense, and in many cases aspect, plays a number of discourse organizational roles, giving the speaker a set of instructions about: the construction and organization of spaces; the organization and distribution of the discourse primitives {BASE, FOCUS, EVENT, V-POINT}; the partitioning and distribution of information over a set of spaces; the local links, local time connections and hierarchical relationships between spaces; the access path taken to reach a particular space from some V-POINT; the accessibility of the information within a given space vis-a-vis other spaces<sup>130</sup>; and the FOCUS space's FACT/PREDICTION status.

Tense-aspect plays a critical role in signalling the arrangement of {BASE, FOCUS, EVENT, and V-POINT} and tracking the dynamic distribution and redistribution which these discourse primitives undergo during the interpretation process. The roles which particular tense-aspect categories play in this respect are summarized below.

- The tense categories {PAST, PRESENT, FUTURE} determine the arrangement of and the local time connection between FOCUS and some V-POINT. Since tense always indicates a particular type of FOCUS space, tense plays an important role in signalling shifts in FOCUS.
- The PRESENT determines the arrangement of and the local time connection

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<sup>130</sup> A space's degree of accessibility affects spreading and optimization strategies, and thus, the information flow between spaces.

between FOCUS and V-POINT/ BASE. Because of its strong tie to BASE, the PRESENT also plays a crucial role in signalling shifts in BASE. The PRESENT's role in signalling shifts in BASE was investigated in detail in chapter 7.

- The aspectual categories PERFECT and PROGRESSIVE give information about the arrangement of and the local time connection established between V-POINT (FOCUS) and EVENT. The PERFECT and PROGRESSIVE identify or cue construction of an EVENT space which is separate from FOCUS.
- The aspectual categories IMPERFECTIVE and PERFECTIVE play an important role in signalling the relationship between V-POINT and FOCUS.

The following sections will give an overview of the ways in which the discourse management role which tense-aspect plays, in signalling the distribution and arrangement of {BASE, FOCUS, EVENT, and V-POINT}, in assigning a FACT/PREDICTION status to FOCUS spaces, in the partitioning and distribution of information over a set of spaces, in marking space access and accessibility, has been used to account for a wide range of tense-aspect data in French and English.

#### 8.4 FOCUS Space Distinctions

The distinction between PAST, PRESENT, and FUTURE FOCUS spaces is used in chapter 4 to motivate the cooccurrence restrictions on time adverbs with the French *Passé Composé* and the distribution of the *Passé Composé* in different types of conditional constructions. The French *Passé Composé* was analyzed as having the potential to encode either a PAST or PRESENT FOCUS space. Where the FOCUS space is PAST, it may cooccur with past time adverbs. Where the FOCUS space is PRESENT, it may cooccur with present or future time adverbs. The *Passé Composé* may encode future events where those events are construed as FACT, rather than PREDICTION. In conditional constructions, the *Passé Composé* may also pattern like a PAST or a PRESENT.

The distinction between different FOCUS spaces is also used to account for the distribution of time adverbs with the English Perfects. With the Present Perfect, time adverbs may only refer to a time period indicated by the auxiliary 'have'. As many researchers have noted, with Past and Future Perfects, time adverbs may refer to a time period indicated by the auxiliary 'have' or to the time period indicated by the Past Participle. Under the analysis presented in chapter 4, the Present Perfect encodes only a PRESENT PERFECT, while the Past Perfect may encode either a PAST PAST or a PAST PERFECT and the Future Perfect may encode a FUTURE PAST or a FUTURE PERFECT. Since different FOCUS possibilities are available for the Past and Future Perfects, time adverbs occurring with these forms may refer to different FOCUS spaces, i.e. to different time periods.

## 8.5 V-POINT Distinctions

The aspectual categories IMPERFECTIVE and PERFECTIVE play an important role in signalling the relationship between V-POINT and FOCUS. The V-POINT distinctions inherent in the categories {PERFECTIVE, IMPERFECTIVE} are used to motivate the contrastive distribution of the French Imparfait and Passe Simple, as well as the contrastive distribution of the French Pluperfects, the Plus-que-Parfait, and the Passe Anterieur. The French Imparfait, a PAST IMPERFECTIVE, is the appropriate choice for marking the auxiliary of the Future of the Past and the auxiliary of the Plus-que-Parfait. The Future of the Past (PAST FUTURE) and the Plus-que-Parfait (PAST PAST or PAST PERFECT) encode combined discourse links. The FOCUS space set up for interpretation of the first link (PAST) becomes parent and V-POINT for the space set up for the second link. The PAST IMPERFECTIVE appropriately structures the FOCUS space set up for the first discourse link of the PAST FUTURE, PAST PAST, or PAST PERFECT, since it indicates that FOCUS is V-POINT. V-POINT distinctions are also used to motivate the distribution of the Imparfait and Passe Simple in conditional constructions.

## 8.6 FACT/PREDICTION Distinction

Tense markers assign FOCUS spaces a FACT/PREDICTION status. The PRESENT and PAST are FACT markers. The FUTURE is a PREDICTION marker. The FACT/PREDICTION distinction distinguishes the FUTURE as different from other tense categories and reflects a basic cognitive model of the world, in which the past and present in real-time are fixed and unchangeable, but the future in real-time is not. The

FACT/PREDICTION distinction plays an important role in the account of the PRESENT for future events and in the account of the puzzling constraints on tense in embedded clauses of indirect speech.

Since a PRESENT space represents a time frame which is *not* prior to BASE, it can represent a time period which is posterior (i.e. future) in relation to now. Since the PRESENT only need be non-prior to BASE, it can be used to encode future events where those events are construed as FACT. In chapter 4, I argue that construal of future events as FACT is at work in the use of the English Simple Present for future scheduled events (*'The train leaves at 8'*), for performatives which encode a future event (*'Your mother goes home tomorrow!'*), for future events in clauses which begin with {when, until, before, after, while, as soon as}, and for future events in the protasis ('if clause') of conditional constructions. The FACT/PREDICTION distinction also motivates the use of the Future for present events which are predicted to be true.

## 8.7 Access

An important notion investigated throughout this dissertation is the notion of space *access*. Tense-aspect markers reflect the *access path* to a particular space. A tensed expression targets a particular space, accessing that space via an access path composed of a single tense-aspect discourse link or a combination of discourse links. The access path will always be anchored to some V-POINT; in the canonical case, that V-POINT is BASE.

This dissertation investigates the nature of access paths and the access properties

of spaces. I show that other non-BASE V-POINTS may serve as anchors for tense. This is important for the account of the Past for future events in embedded relative clauses (*‘John will write a letter to the President tonight. Tomorrow he will burn the letter that he wrote’*) and embedded clauses of indirect speech (*‘John will announce at midnight that he burned the document 2 hours before’*). Chapter 3 shows that a space may be accessed and reaccessed via a different access path. Chapters 5 and 6 examine the access properties of spaces set up for the interpretation of embedded clauses, in particular, the special access properties of spaces constructed for the interpretation of embedded indirect speech and conditional constructions.

Chapter 5 investigates the nature of space embedding and access of spaces constructed for the interpretation of tense-aspect in conditional constructions. With hypothetical conditional constructions, the tense-aspect markers in the apodosis (*‘then clause’*) reflect an access path from an initial hypothetical space constructed for the interpretation of the space-builder *‘if’*. The entire access path is embedded in the hypothetical domain. In counterfactual constructions, the tense-aspect markers in the apodosis reflect an access path directly from BASE, although a part of the access path is embedded in the counterfactual domain. While PAST and PRESENT hypotheticals allow a full range of protasis-apodosis tense combinations, counterfactual constructions allow only certain types of access paths, i.e. tense-aspect markers, in the apodosis. I argued that the different embedding structures of PAST hypotheticals and PAST counterfactual constructions limits the tense-aspect possibilities for the apodosis and the way in which the access path indicated by the apodosis can be embedded in the counterfactual domain.

In chapter 6, I propose that spaces set up for interpretation of indirect speech are assigned a FACT/PREDICTION status in relation to the V-POINT of the experiencer or

reported speaker, V-POINT/@. A FACT/PREDICTION Principle is proposed, a Principle which rules out access from V-POINT/BASE where a space's FACT/PREDICTION status in relation to V-POINT/BASE would be inconsistent with the FACT/PREDICTION status it is assigned in relation to V-POINT/@. The FACT/PREDICTION Principle enforces a kind of constraint on V-POINT consistency. The V-POINT of the experiencer or reported speaker and the FACT/PREDICTION status of the event or situation in relation to that V-POINT have priority over V-POINT/BASE.

### **8.8 Space Partitioning, Default Mapping and Default Spreading**

Tense and tense-aspect play an important role in the partitioning and distribution of information over a set of spaces. The space partitioning provided by the mental space format allows information to be separated and distributed into local domains. From a processing standpoint, the advantages of subdividing information into local domains is clear. Partitioning is also important in the account of tense-aspect, in particular, in the account of habitual, generic, and Progressive expressions.

Under the mental space analysis, PAST, PRESENT, and FUTURE habitual and generic expressions are handled uniformly by space partitioning. Habitual and generic expressions set up a local frame, which holds (i.e. is available for mapping) over a particular time period. The time period over which the frame holds may be indicated specifically by time adverbs or more generally by tense and/or pragmatic information. With habituais, the event in the habitual space may map onto any space which represents a relevant time period. For any given time when the habit does not hold as specified in the

habitual frame, the partitioning of information into a local frame and the defeasibility of mapping allows an entity to have different properties in the habit space than its counterpart in the “reality” space (onto which the habitual property maps). For example, the expression *‘John swims everyday’* sets up a habitual space in which John has the property of swimming. However, for any given day where John does not swim, the defeasibility of mapping allows John to have different properties in the habitual space from those in the “reality” space (onto which information in the habitual space maps). With generics, properties are assigned to a role. The relevant properties may map onto any relevant role filler in a “reality” space which represents a relevant time period. The partitioning of information into a generic space, the assignment of the generic property to a role, and the defeasibility of mapping allows a particular member of the class (a role filler in a “reality” space) to have different properties from the role and other members of the class.

The PROGRESSIVE also uses space partitioning to separate representation of the full structure of an event into an EVENT space which is separate from FOCUS. The space partitioning also allows us to account for certain inferences about the existence of entities in the FOCUS space. For example, in the sentence *‘John is writing a letter’*, the letter is constructed as an entity in the EVENT space, but does not necessarily have to be constructed as an entity in the parent FOCUS space. Default transference may be blocked by contradictory information.

## **8.9 Space Accessibility and Optimization**

Another important discourse management function of tense is its role in marking

space accessibility. This role is particularly important in the analysis of counterfactual conditional constructions, counterfactual wishes, and the use of the PAST for politeness forms.

Chapter 4 and 5 investigate in detail the nature of tense in both hypothetical and counterfactual conditional constructions. Conditional constructions are analyzed as setting up an informational frame which has mapping potential. The space or set of spaces constructed for interpretation of the protasis ('if clause) define the *matching*<sup>131</sup> conditions which must be met in order for the structure and information encoded in the apodosis ('then clause') to *optimize* and map onto speaker reality, i.e. to transfer from the hypothetical domain to the "reality" domain. This approach accounts for subtle semantic interpretations available for tense in the apodosis, where tense cannot be interpreted in relation to speech time. It also offers a more general treatment of content level, epistemic, and speech act conditionals (Sweetser 1990, to appear) and motivates the use of conditional constructions to set up felicity conditions on speech acts.

The effect of the PAST as a matching condition in conditional constructions, where the PAST has a present or future counterfactual interpretation, is that optimization of the structure of the apodosis to speaker reality is blocked, since there is no FACT space in the "reality" domain which will meet the matching conditions of being both PAST and 'now' or both PAST and future. This approach to the PAST in counterfactuals is consonant with the idea that temporal distance extends to express non-actuality or non-probability.

Similar analyses are proposed for use of the PAST for present or future events in

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<sup>131</sup> Fauconnier (1990, to appear).

wishing constructions and politeness forms. Wishing expressions cue construction of a wish space which represents a present or future time frame. The function of the PAST and the counterfactuality derived from structuring the present wish space with the PAST is to limit the accessibility of the wish space. The resultant properties of the event or state of affairs in the wish space cannot optimize to the higher parent space. With the PAST for politeness forms, a request or comment is asserted in a PAST domain, rather than in PRESENT speaker reality, in order to attenuate its directness. Rather than make a direct request or comment, the speaker places the request/comment in a PAST domain and counts on optimization and the inferencing abilities of the hearer in order for the request/comment to transfer (i.e. optimize) to speaker reality and be interpreted as a PRESENT one.

### **8.10 Tense in Pragmatic Context and in Discourse-Narrative**

Under the mental space view of language, there are no sentences without a context. Every sentence has a context, whether that context be in conversation, in discourse-narrative, or in the barest of contexts as an example on the page of a linguistics paper. This context, discourse oriented approach makes the important point that the grammaticality and well-formedness of a given tense-aspect marker in a particular construction is not a matter purely of syntactic factors, but rather, may depend on a pragmatically felicitous context which sets up the proper space configuration. In particular, chapter 5 shows that many protasis-apodosis tense combinations which may at first appear ungrammatical are in fact possible in pragmatically felicitous contexts. Pragmatically felicitous contexts are particularly important for Past and Future Perfects, which set up and compare two time frames in addition to BASE. A pragmatically

felicitous context will provide a reason for comparing those two time frames.

The precise characterization of tense-aspect categories in terms of the distribution of {BASE, FOCUS, EVENT, V-POINT} and the investigation of tense and tense-aspect in discourse-narrative has allowed us to develop a set of more general principles of discourse organization. The Discourse Organization Principles, proposed in chapter 3, constrain the space construction process; for example, they tell us that a clause may only output one FOCUS space, and that spaces may only be built from FOCUS or BASE. The Discourse Principles also govern the distribution of {BASE, FOCUS, EVENT, V-POINT} over a set of spaces, constraining the kind of dynamic changes which these primitives can undergo. For example, the principles allow an EVENT space to become FOCUS, but do not allow a FOCUS space to become merely an EVENT space. These principles rule out certain types of sequential sentence constructions.

The model of tense and the precise characterization of tense in terms of its role in the cognitive construction process allows us to look at functions of tense in narrative in a more precise and operationally defined way. Chapter 7 shows that narrative may be set up with various levels of reference, each with its own BASE/V-POINT from which tense may be accessed. I proposed that potential BASE spaces may be set up for speaker reality, hearer reality, an implied author, a narrator, or implied reader. I argued that every work of fiction has its own BASE constructed for the conceptualization of the implied author. This BASE is a fictive construct which can be structured from any stance; the stance may be omniscient, it may be the stance of a fictive entity, or it be structured to look like the stance of the real world author.

Chapter 7 also investigates the role of the PRESENT in signalling shifts in BASE.

I argue that discourse-pragmatic uses of the PRESENT for interior monologue, for expression of narrative point of view and author evaluation are cases of shift in BASE; that these uses of the PRESENT make use of mechanisms which are already available in the language, although the mechanisms may be pushed to expressive extremes. I suggest that subjective feelings which may arise from use of the Present tense are as a result of the cognitive links established between V-POINTS on different levels of reference. The mental space approach gives us a more precise and refined way of talking about how tense markers are used for textual, narrative functions, and in the expression of subjectivity and narrative point of view.

### **8.11 Conclusion**

This dissertation has developed a mental space approach to tense, and to tense-aspect as a system. In terms of its contribution to mental space theory, the work undertaken here has allowed us to understand more general principles of discourse-organization, principles of space access, and the nature of space embeddings for subordinate clauses (in conditional constructions, in indirect speech, and in embedded relatives).

The mental space approach allows us to capture in a more precise and operationally defined way the intuitions of Bybee and Dahl (1989), Givon (1984) and many others that tense plays a central role in coding discourse connectedness and coherence. A more precise account of tense's role in discourse organization and discourse semantics also offers support for Bybee and Dahl's (1990) claim that the primary force behind grammaticization of tense-aspect is not merely temporal location,

but rather, some general discourse-pragmatic or processing functions(s) served by tense-aspect grams (grammatical morphemes).

The approach taken here is distinct from standard treatments of tense in a number of important ways. Under the mental space approach, meaning construction is not the divided work of separate components, and there are no separate functions for tense in narrative and non-narrative contexts. No distinction is made between contextual and “non-contextual” meanings; between sentence level and discourse level phenomena; or between narrative and non-narrative tense systems. The approach handles contextual and non-contextual, narrative and non-narrative functions of tense in a unified manner. The same characterizations of tense and the same theoretical constructs and principles take us from sentence level linguistics to complex contextual, textual, and discourse data.