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### **Tense, Aspect, and Temporal Homogeneity**

I will argue that if we look at the durative adverbial distribution and the aspectual contrasts across the different morphological tense forms in Romance languages, we discover that the homogeneity character of the tense complement plays a fundamental role in tense selection. Italian durative per-adverbials (for) and da-adverbials (since) are found in complementary distribution within atelic predicates, as shown below

per-adverbial	da-adverbial
(1) ??È buio per due ore a) Is-PRES dark for two hours	(1) È buio da due ore b) Is-PRES dark since two [Presente] hours
(2) ??Era buio per due ore a) Was-IMP dark for two hours	(2) Era buio da due ore b) Was-IMP dark since two [Imperfetto] hours
(3) Fu buio per due ore a) Was-PRE dark for two hours	(3) ??Fu buio da due ore b) Was-PRE dark since two [Passato Remoto] hours

As shown above, in the (a)-examples, per-adverbials combine felicitously with the Passato Remoto but not with the Presente and the Imperfetto; in the (b)-examples, da-adverbials combine with the Presente and the Imperfetto but not with the Passato Remoto. This distribution is the first thing I want to account for. I will assume that durative adverbials measure the length of the reference time introduced by tenses (Dowty 1979): per-adverbials combine with temporal predicates to give temporally non-homogeneous predicates, da adverbials combine with temporal predicates to give temporally homogeneous predicates. I will argue that the contrasts above depend on the properties of tenses in Romance languages. I will claim that: (i) the Imperfetto and the Presente select for temporally homogeneous predicates, therefore they can combine with da-adverbials but not with for-adverbials, (ii) the Passato Remoto selects for temporally non homogeneous predicates, therefore it can combine with for-adverbials but not with da-adverbials. I will moreover extend my proposal to account for tense selection and aspectual meaning in event sentences .

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### **Temporal exceptives**

Certain uses of the preposition until and its counterparts in other languages trigger converse entailments, whereby a sentence of the form "A until B" entails the negation of A at or around B. I propose that the preposition until functions as an exception marker, so the meaning of (1) is analyzed along the lines of the paraphrase in (2).

- (1) The princess didn't wake up until 9.
- (2) The princess didn't wake up except at 9.

The semantics is formulated in terms of temporal generalized quantifiers (Pratt and Francez 2001): temporal adjuncts denote generalized quantifiers which operate on the temporal context of the modified clause, and temporal prepositions modify temporal variables inside

these adjuncts. This framework allows the incorporation of the converse entailments directly into lexical representation of until.

The analysis does not tie converse entailment to negative polarity (unlike Karttunen 1974), and is thus applicable to languages like Hebrew, where until may give rise to converse entailments even when the main clause is not negated. It is consistent with the use of explicit lexical exceptives for the meaning of until in Greek (Giannakidou 2002). The analysis also explains why until only applies to predicates whose temporal interpretation has universal force.

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Maria Bittner  
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### **Conditional prospects in a tenseless language**

The Eskimo language Kalaallisut does not grammatically mark tense, but mood. It has five matrix moods (indicative, negative, interrogative, optative, imperative) and five dependent moods (factual, non-factual, hypothetical, habitual, elaborating). Nevertheless, temporal reference is as precise as in English, due to lexical typing of verbs for aspectual class (state, event, process, or habit), which determines aspect-based temporal location and update in discourse (Bittner 2005, 2007).

Future reference combines *realis mood* (indicative or factual) with a derivational suffix for a future-oriented attitude state (*prospective stative*). The speaker refers to a mental state which holds at the current *topic time* (Klein 1994) and whose experiencer expects, desires, dreads, considers likely, unlikely, etc, some future prospect. Whether or not the prospect comes to pass, the current mental state is presented as a fact (Bittner 2005).

This paper presents new evidence that prospective statives also occur in conditionals. The antecedent clause is in the hypothetical mood, while the consequent clause is usually headed by a prospective stative verb in a *realis mood*. That is, the speaker presents as a fact a mental state whose experiencer has a certain attitude toward a conditional prospect, expected to be realized if the antecedent hypothesis comes to pass. Depending on the topic time, this attitude state may hold now or in the topical past.

Stone (1997) classifies English modals as REAL (e.g. *is, must*), VIVID (*will, can*), or REMOTE (*would, should*), based on the relation between the speech reality and the topical modality (cf. tense). In Kalaallisut, a REAL conditional has just *realis mood* in the consequent. In a VIVID conditional, there is also a *prospective stative*. A REMOTE conditional ('counterfactual') is still in a *realis mood*, but the real attitude state of the prospective stative is marked by the suffix *-galuar*, for unrealized expectation or desire.

Judite Carecho  
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### **Tense, 'aktionsart', and aspect in Portuguese and German**

The difference between the Portuguese past tenses *Perfeito* and *Imperfeito* has been regarded by some authors as an instance of the contrast between perfective and imperfective aspect. However, as I will argue, it can be more effectively explained as a result of the interaction between tense meaning and basic 'aktionsart' class. The *Imperfeito* locates states as overlapping a given past perspective point, but event predicates cannot be interpreted in the same way. In many cases they receive a habitual reading, and sometimes a progressive reading. On the other hand, the *Perfeito* locates both events and states as a whole in a given past interval. This is unproblematic for events, since they are self-contained situations with intrinsic boundaries, but *Perfeito* also forces a bounded interpretation upon states, which possess no such inherent limits. All these facts will be accounted for if the *Perfeito* and the *Imperfeito* are described as tenses that locate bounded and unbounded situations, respectively. Furthermore, this proposal can be extended to two other Portuguese tenses: the Present, which locates unbounded situations in a very similar way to the *Imperfeito*, and the Pluperfect, which mirrors the behaviour of the *Perfeito* and locates bounded situations only.

As for German, although the discussion of possible aspectual features is usually restricted to the *Perfekt* and the *Plusquamperfekt* and there is in fact no similar contrast between two patterns of interaction of tense and 'aktionsart', we do find that the German *Präsens* relates with different classes of 'aktionsart' in a way that is very similar to that of the Portuguese Present and *Imperfeito*. Other German tenses, such as the *Präteritum*, apparently do not interact with 'aktionsart'. However, predicate classes seem to play a role in their interpretation, at least in narrative discourse, as data from a parallel Portuguese-German corpus show.

Cheng-Fu Chen  
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### **The Use and Temporal Interpretation of the Rukai Future Tense**

The future time reference in languages that have tense categories is often associated with modality (for example, English, as in Enç 1996), and as Dahl (1985) puts it, "A sentence which refers to the future will almost always differ also modally from a sentence with non-future time reference (p.103)". The present paper investigates Rukai (Austronesian, Taiwan) and argues that the Rukai future encodes temporal succession, which allows the future to only signify temporal information.

The Rukai future can be used in sentences that convey desire, intension or ability. The meaning is, however, largely context-dependent and is not explicitly encoded on the morpheme itself. Finer distinctions on modality are conveyed by verbal morphemes of necessity and possibility. In the domain of temporality, what is crucial is that the future posts a constraint on simple sentences such that it cannot co-occur with past adverbials, even when the future seems to be used as a modal. Furthermore, as we contrast the interpretation of the future morpheme in simple sentences and subordinate clauses, we find its use for past situations in the latter, where it conveys future-in-the-past.

This paper provides a relative tense analysis for the Rukai future (Comrie 1985, Enç 1987); in its semantics, the future encodes a relation of temporal succession, with which the

location of a situation in time is anchored to a given reference time (Reichenbach 1947, also Smith 1997), and not necessarily to the speech time.

The analysis has the implication that in languages that have a relative tense system, the future may only encode an essential temporal relation of succession. It allows the future to be dissociated from modality in the sense that the marked sentences differ from the others only temporally, but not modally.

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### **On the Present and the Past in French Child Language**

We report the findings of an experimental study designed to test the construal of past and present tense morphemes in French child language (Truth-value judgment tasks carried out with 3 groups of children aged from 3;08 to 6). We discuss some surprising non-adult construals of the present and the 'imparfait' in both independent contexts and subordinate contexts (relative and complement clauses). We argue that on these non-adult construals: (i) the 'imparfait' (as opposed to the 'passé composé' (present perfect)) does not carry any meaning of *anteriority with respect to the local evaluation time* (UT-T or the matrix situation-time in subordinate contexts), and (ii) the present is non-indexical, non-deictic, does not convey any meaning of simultaneity *relative to UT-T*.

We conclude that French child language provides strong evidence for referential theories of tenses according to which the past and present tense morphemes are temporal variables saturating the time argument position of the predicate to which they are affixed. On this view, past and present tenses are temporal analogues of pronouns that may be 'bound' by other time denoting elements in the sentence or the discourse (e.g. Enç 1986, Abush 1994, Heim 1994, Kratzer 1998 or Kusomoto 1999). Non-adult patterns of construal arise when the present & the 'imparfait' act as bound variables or 'zero' tenses in the sense of Kratzer (1998): they are time variables with no temporal features at all, that is, with no presuppositions on the values to be assigned to these time variables (the temporal analogue of pronouns without *phi*-features –that is, bound or zero pronouns). The binder of these time variables can be the matrix SIT-T in a subordinate context, an overt time-denoting phrase (adverb) or some salient time in the discourse in independent contexts.

Markus Egg & Corien Bary  
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### **Aspect and Coercion in Ancient Greek**

The interpretations of aoristic and imperfective aspect in Ancient Greek cannot be put down to unambiguous aspectual operators but suggest an analysis in terms of coercion in the spirit of Swart (1998). But since this analysis cannot explain the Ancient Greek data, we combine Klein's (1994) theory of tense and aspect with Egg's (2005) aspectual coercion approach.

According to Klein, (grammatical) aspect relates the runtime of an eventuality and the current time of reference (topic time). We show that these relations can trigger aspectual selection restrictions (and subsequent aspectual coercions) just like e.g. aspectually relevant temporal adverbials and are furthermore susceptible to the Duration Principle of Egg (2005): properties of eventualities must be compatible w.r.t. the duration they specify for an

eventuality, otherwise coercion is called for. The interpretations of aorist and imperfective can be derived in this way, and also cases problematic for de Swart's (1998) analysis.

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Anastasia Giannakidou  
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### **The dependency of the subjunctive revisited: temporal semantics and polarity**

In this paper, I examine the syntax-semantics of subjunctive clauses in (Modern) Greek. These clauses are headed by the particle *na* and contain a dependent verbal form with no formal mood features: the perfective nonpast (PNP). I propose that the semantics of *na* is temporal: it introduces the variable *now* (*n*) into the syntax. This is necessary because the apparent present tense in the PNP cannot introduce *n*. The PNP, instead, contains a dependent time variable. This variable cannot be interpreted as a free variable – hence it cannot be identified with the utterance time of the context.

This analysis relies on two premises. One is the (quite influential) idea that pronouns and tenses are analogous creatures (Partee 1973, 1984, Heim 1994, Kratzer 1998, and others). The other premise is that at least some polarity items are expressions that contain variables that cannot be interpreted deictically (Giannakidou 1998, 2001). In the present work I suggest to enlarge the domain of phenomena that can receive a unified treatment across individuals, worlds, and tenses, and treat the subjunctive mood as a non-deictic time, thus an instance of a polarity dependency of the temporal kind. It is my hope that the analysis proposed here for the PNP can be used to analyze verbal subjunctives in Romance languages, and perhaps also infinitival forms in English, but investigation of this question will have to be left for the future.

Katharina Haude  
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### **Tense marking on dependent nominals in Movima**

Movima (isolate, lowland Bolivia), does not mark tense on the verb. In addition to occasional TAM particles, temporal relations are indicated by the article. The article is an obligatory part of every noun phrase, where it indicates presence, absence, or ceased existence of the referent. With these deictic properties, by implicature, it also indicates the temporal location of events relative to the speech situation: ceased existence of the referent normally implies that the event in which it participated also took place in the past. This temporal implicature can only be cancelled by a TAM particle in the clause.

Many entities that played a role in a past event are still in existence at the time at which the event is narrated, and here, no temporal inference can be made from the form of the article. However, the number of NPs denoting non-time-stable concepts is very high in Movima: subordinate clauses have the form of an NP, consisting of an article and a deverbal noun. Since the concepts referred to by these NPs are usually non-time-stable (states or events), the form of the article in these NPs reliably indicates discourse tense.

Thus, the deictic properties of the article together with the high frequency of deverbal NPs in Movima make it possible that the typically verbal feature of tense marking can be taken over by dependent constituents. This highly noteworthy phenomenon has so far not been described for any other language.

Jacques Jayez  
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### **A solution to Mittwoch's problem**

Mittwoch (1988) noted that sentences like (1) are either strange or, at least, difficult to interpret:

- (1) ??It was raining for two hours [ex. 84 of Mittwoch]  
??The level of the lake was rising 10 feet when I arrived [ex. 91]  
#John was drinking three cups of tea [ex. 93]

These observations raised a problem for Dowty's (1979) analysis. They remain problematic for more recent modal/intensional analyses (Asher, Bonomi, Landman), as noted by Jayez (1999) and Zucchi (1999). I'll discuss Zucchi's (1999) proposal and argue that the relatively standard idea of 'measuring out' provides a sound basis for understanding the contrasts pointed out by Mittwoch. Intuitively, 'measuring out' denotes the correspondance between a dynamic eventuality and an entity, and has been used in different frameworks (e.g. Jackendoff 1996, Krifka 1992, 1998, Tenny 1994, Verkuyl 1989, 1993, 1999). The crucial aspect in Mittwoch's configurations is the absence of an independent entity that one could associate with the phases of the eventuality. I'll show how this feature interacts with the semantics of the progressive (and more generally with imperfective operators).

Mathias Jenny  
Universität Zürich

### **Tense in Burmese?**

Indigenous Burmese grammars make a distinction between NON-FUTURE (past/present) and FUTURE sentence particles (predicate markers, clause operators). While this view was adopted by early writers on the language, most recent linguistic descriptions of Burmese refer to the distinction as one of REALIS vs. IRREALIS, i.e. modal rather than temporal. Comrie (1985:50ff) analyses data given in Okell (1969) and concludes that the distinction is one of modality rather than tense. Twenty years later Yanson (2005:221f) reaches the same conclusion, based on similar data, while Gärtner (2005:106f) seems to favour an analysis as tense, but admits that the FUTURE marker also includes hypothetical events, i.e. also has modal value.

In the present study the arguments for the modality vs. the tense analyses are scrutinised and checked against fresh evidence from actual spoken Burmese, and are put in a broader cross-linguistic context. It will be argued that a closer look at the actual use of the respective operators suggests that Burmese in fact does have a tense system with NON-FUTURE *te* vs. FUTURE *me*, i.e. a "retrospective" system in Ultan's typology (Ultan 1978:88). The atemporal (modal) uses of the FUTURE marker can be explained either as extensions of the predictive component inherent in the semantics of future tenses or as

idiosyncratic uses of the FUTURE marker in combination with other morphemes, such as the grammaticalised verb *yá* ‘get’ to achieve a deontic or epistemic modal reading ‘must’ (s. Jenny 2007), and the assumptive particle *lěi* in tense-neutral assumptive expressions. A number of reasons support the analysis of the Burmese clause operators as temporal, including the obligatoriness of the FUTURE marker in future contexts, but not in most modal expressions, as well as the use of the NON-FUTURE marker in past and present counterfactual contexts, where we would expect a NON-FUTURE tense, but not a REALIS marker. This suggests that we are dealing with a tense system with some modal extensions of the FUTURE tense rather than with a modal system with temporal implicatures or uses.

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### Building up expectations

This paper starts from an argument that certain tensed embedded clauses denote relations between times, and explores the consequences of this view for the LF architecture of embedded clauses.

As shown in (1), verbs like *predict*, *anticipate*, *foresee* and *expect* select for future tense when they take finite clausal complements (cf. Presque 2000). On an analysis on which the embedding verb selects for a property of time intervals, and the embedded clause denotes a property of time intervals (cf. Ogihara 1995, Abusch 1997), this is a mystery. But it follows straightforwardly if the embedding verb selects for a relation and the embedded clause denotes a relation (cf. Stechow 1995, Katz 2001). We thus argue that this is what is happening ((2)), and that tense takes properties of time intervals (like  $\Box t_i. \Box w_s$ . it rains at  $t$  in  $w$ ) and returns relations between time intervals.

- (1) John foresees that it will rain / \*is raining / \*rained.  
 (2) a.  $[[\text{foresee}]] (R_{\langle i, \langle i, st \rangle \rangle})(x_e) = \lambda t_i. \lambda w_s$ . every doxastic alternative  $\langle w', t' \rangle$  that  $x$  entertains in  $w$  throughout  $t$  is such that for some time  $t''$  after  $t'$ ,  $R(t')(t'')(w') = 1$ .  
 b.  $[[ [\text{TP FUT/PRES/PST} [\text{VP it rain} ] ] ] ] = \lambda t_i. \lambda u_j. \lambda w_s$ .  $t$  precedes / surrounds / follows  $u$  and it rains at  $u$  in  $w$ .

We examine two issues within this approach. First, some verbs that select for relations, like *expect*, combine with infinitivals. We argue that infinitivals are uniformly “born” as properties and we argue for a way in which they come to be coerced into a relational meaning. Secondly, verbs like *believe* do not select for the tense of their finite complements. We argue that these select for properties, and that creating the property involves a syntactic operation of existential closure. Finally we explore cross-linguistic issues that these selection facts raise.

Brenda Laca & Patricia Cabredo-Hofherr  
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### **When "perfect" means "plural": the so-called present perfect in some American Ibero-romance varieties**

One of the most puzzling facts in the study of “compound tenses” is that those whose auxiliary is in the Present Indicative usually show a different, more restricted distribution than non-present or non-indicative forms. In this contribution, we examine the behavior of the *ter* ‘have’ + PP construction in a particularly restrictive Northeastern variety of Brazilian Portuguese, which requires a plurality of distinct events/intervals when appearing in the present indicative. By contrast, *haber* ‘have’ + PP in similarly restrictive varieties of American Spanish has the distribution of well-behaved Universal perfects. The fact that the “Present Perfect” in the former case not only specifies the relative location of the interval of evaluation, but also the internal structure of this interval, poses a major problem of compositionality for approaches that distinguish between “lower aspect” as affecting temporal structure and a time-relationally conceived “higher aspect”. Such problems are similar in nature to those arising in the analysis of habituais –if habituality is indeed closely associated with imperfectivity.

Julia Landgraf  
Sabhal Mòr Ostaig, Sleat & University of Edinburgh

### **Tense in Scottish Gaelic**

Different from most other languages, Scottish Gaelic lacks a simple present tense altogether. Instead, we find a present progressive which, in fact, can only be employed in a proper progressive sense (*Tha Murchadh a' leughadh an leabhair*. 'Murchadh is reading the book'), and a future tense, which interestingly is also being used with a present tense reference.

Thus, whereas we are frequently confronted with examples such as *Murchadh goes to Inverness tomorrow* conveying a future meaning through the present tense in e.g. English, French and German, the opposite is encountered in Gaelic: On the one hand we have *Bidh Murchadh a' dol a dh'Inbhir Nis a-màireach* ('Murchadh will be going to Inverness tomorrow') where a future progressive is actually expressed by a future progressive construction; but on the other hand the same sentence *Bidh Murchadh a' dol a dh'Inbhir Nis* will be found meaning 'Murchadh goes to Inverness', implying that he goes there on a regular basis, thus with a present tense reference. There is no other way to express a simple present in ScG, but through future constructions (simple future and future progressive, but not through the equivalent of the *going to*-future: *Tha mi a' dol a dhèanamh X*. 'I am going to do X').

Apart from this distribution of tense expressions, it is also striking that in most cases the verb itself is not morphologically marked for tense, but rather according to the distinction of dependent, independent or relative forms. It is those forms plus the syntactic context of the verb that actually tell us about the tense it conveys. The independent/dependent-distinction appears to be more prominent in ScG than the formal distinction of tenses, and it is partially this type of hierarchy which has triggered a verbal system that includes multifunctional tense expressions

Hector Manni  
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### Tense and evidentiality in Mocoví

Mocoví, a Guaykuruan language spoken in Argentina, is likely to be characterized as a superficially tenseless language. However, I will argue that it possesses both morphological and syntactical temporal properties. In this presentation, I am concerned with how the time interpretation in Mocoví is achieved. I propose that Mocoví possesses in the finite clause syntax a tense node. Following Kratzer (1998), I claim that in the Mocoví language, the tense node in the matrix clause has a zero tense ( $\text{\AE-T}$ ). And as  $\text{\AE-T}$ , it picks up features from its antecedent. But,  $\text{\AE-T}$  is in the matrix clause, so the problem to solve is what is the antecedent from which it receives its value. I will argue that the candidate to be antecedent of  $\text{\AE-T}$  is the determiner in argument position.

Mocoví, the same as other Guaykuruan languages, has a particularly complex system which precedes the nouns. That system is apparently constituted by two subsets based in a perceptual semantic property: dimensional perception and presence/absence in the speaker view field; but I shall show such semantics is related to evidential properties that encode information source and epistemic modality. I adopt that Speas's (2006) proposal that evidential morphemes are a type of agreement that specify the nature of modal base. There are both semantic and syntactic reasons to assert that such system constitutes the DP structure.

As T is  $\text{\AE-T}$  in Mocoví, it doesn't introduce a variable over time intervals; consequently it triggers the insertion of a binder index at LF that it will generate the wanted property of time.  $\text{\AE-T}$  must be bound by an antecedent. I shall show that DP is the antecedent for  $\text{\AE-T}$ . I assume that the Evidential Mood Phrase is the landing site of the DP that rises from their position original. I posit the Mocoví D, specifically the evidential morpheme, maps properties of time into properties of worlds, in such a way the  $\text{\AE-T}$  receives its value.

Ilana Mezhevich  
University of Calgary

### A unified view of tense and mood: the case of Russian conditionals

Russian like many other languages with no verbal mood morphology uses past tense morphology to convey irrealis (Dahl 1997; Palmer 2001):

- (1) a. Anna **čita-l-a** knigu včera/\*sejčas/\*zavtra. *Indicative Mood*  
Anna **read-PAST-FEM.SG** book yesterday/now/tomorrow *Past Tense*  
'Anna read/was reading a book yesterday/\*now/\*tomorrow.'  
b. Anna **čita-l-a** by knigu včera/sejčas/zavtra. *Conditional Mood*  
Anna **read-PAST-FEM.SG** COND book yesterday/now/tomorrow *No Tense*  
'Anna would read/would be reading a book yesterday/now/tomorrow.'

Previous accounts maintain that past and irrealis both express "remoteness" (Joos 1964; Langacker 1978; James 1982). This, however, does not explain how the morpheme that conveys "remoteness in time" can convey "remoteness in reality". I argue that the parallel should be drawn between Tense and Mood themselves and not between particular realizations of these categories. I assume that Tense relates the utterance time T-Ut and the assertion time T-Ast (Klein 1995; Demirdache & Uribe-Etxebarria 2000). I propose that Mood also relates two times: the evaluation time (time relative to which the utterance is evaluated as true or false; T-Evl) and T-Ut. The relation between two times is characterized as the single

opposition of (non)coincidence: Tense expresses (non)coincidence of T-Ut and T-Ast, while Mood expresses (non)coincidence of T-Evl and T-Ut. To capture these similarities and differences, I propose that Tense and Mood have the same semantic feature [ $\pm$ COIN] but distinct morphosyntactic features, [ $\pm$ PAST] and [ $\pm$ FIN], respectively. The interaction between the two types of features together with the mechanism of feature agreement results in the interpretation of [ $-$ COIN] as both past and irrealis. This analysis correctly predicts that future tense morphology can also convey irrealis (e.g. Hebrew), while present tense morphology can only be used in real conditionals.

Yoshiki Mori  
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### Impact of Causal Implicature on the Subordinate Clause Tense

For German, it has been recently argued that causal implicature can be detected not only for past positioning *nachdem* ('after')-clauses but also for future positioning *bevor* ('before')-clauses (cf. Blühdorn 2006, Tenbrink 2007).

- (1) a. Nachdem es mir schlechter ging, wollte ich Schluss machen.  
b. Bevor er das Auto in den Graben lenkte, hatte er ausgiebig mit seinen Freunden gezecht.

We argue that *nachdem* ('after')-clauses and *bevor* ('before')-clauses are nevertheless complementary in the sense that the former is used for the direct (proximal) causality whereas the latter is used for the indirect (distal) causality.

By contrast, the causality reading cannot be observed in Japanese either for the future positioning "mae-ni" ('before') or the past positioning "ato-ni" ('after') with the ordinary distribution of tenses for these clauses in Japanese (present tense for the subordinate and past tense for the main clause in (2a) and past for both clauses in (2b)). Interesting in this connection is the fact that some asymmetry comes out when the past perfect is selected for the sentences expressing temporal precedence (the main clause in (3a) and the subordinate in (3b)):

- (2) a. #shoutotsu suru mae-ni shikotama non-da. (:= 1b with "before")  
b. #shikotama non-da ato-ni jiko-o okoshi-ta. (:= 1b with "after")  
(3) a. shoutotsu suru mae-ni shikotama non-de i-ta. (:= 2a with past perfect in matrix s.)  
b. \*shikotama non-de i-ta ato-ni jiko-o okoshi-ta. (:= 2b with p.p. in after-clause)

In this talk, we will propose that based on Kaufman/Condoravdi type of temporal semantics (Condoravdi 2002, Kaufman 2005), the past perfect (in Japanese) makes it possible to widen a metaphysical accessible relation at least in one of its readings. We think we need another distinction in the realm of Certainty.

Toshiyuki Ogihara  
University of Washington

### Double-Access Phenomena Revisited

Ogihara (1995) and Abusch (1997) contend that the semantics of so-called double-access sentences, a present tense verb is in a verb complement clause when the matrix verb is in the simple past tense, is accounted for by assuming a de re attitude report about an interval or state. Although their proposals make the same fundamental point, they differ as to how to account for the peculiar interpretation dubbed double-access reading. I contend that the

constraint upon the denotation of tenses called Upper Limit Constraint is eliminable because this only applies to a sequence-of-tense language such as English and it does not account for all relevant examples involving tense morphemes anyway. A better account of the double access phenomena should be sensitive to the presence or absence of sequence-of-tense (SOT) phenomena. Another important requirement for a proposal about double-access sentences is that it also accounts for the semantics of future-under-past sentences and (some occurrences of) past-under-past sentences such as the following: *John said that Mary will defend her dissertation next month; John said that Mary defended her dissertation last month.* In my earlier work (Ogihara 1995, 1996), these sentences were all accounted for as instances of double-access sentences (i.e. de re attitudes) and were justified on the basis of Temporal Directionality Isomorphism. In this presentation, the idea is formalized in such a way that it is applicable to both SOT languages like English as well as non-SOT languages like Japanese.

Eva-Maria Remberger  
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### **Tense and volitionality**

Tense and modal interpretation clearly are interdependent phenomena. In this talk, I will explore the prototypical volitional (modal) verb WANT and its interplay with tense. As it is a well-known fact, this verb is future-oriented. Therefore, the propositions expressed by the infinitival clause in (1)-(3) can only refer to events situated in some time to come, i.e. the embedded clauses contain somehow irrealis expressions:

- (1) Engl.: Anna wants to go to Paris.
- (2) Germ.: Anna will nach Paris fahren.
- (3) Ital.: Anna vuole andare a Parigi.

Yet, it is possible, under certain conditions, to use a compound tense, which encodes the fact that the event situation lies before a given reference time, in the infinitival clause, cf. the following examples:

- (4) Germ.: Anna wollte (eigentlich) nach Paris gefahren sein.
- (5) Ital.: Anna vorrebbe/avrebbe voluto essere andata a Parigi (almeno una volta).

Hence, if the verb WANT is used in an irrealis form (such as the conditional in (4) or (5)), in the infinitival clause a compound tense can appear. A non-irrealis form in the matrix clause gives result to a heavily marked sentence, at least in Italian:

- (6) Ital.: ?Anna vuole essere andata a Parigi.

Yet, in German, the sentence shifts to an epistemic (or evidential) meaning:

- (7) Germ.: Anna will nach Paris gefahren sein.  
'G. maintains to have gone to Paris [but probably that's not true].'

The main aim of this talk is to analyse the interplay between tense and modality at work in these and other crosslinguistic examples, on the semantic, as well as on the (morpho-) syntactic level. I take volitionality to be fundamentally deontic in nature, but with a special "subject-linking" property, and I assume the verb WANT to be decomposable in smaller (functional) units.

## Underspecification and Resolution of the Perfect in Lexicon-based UDRT

We present a UDRT-based ((Reyle:1993), (Reyle/Rossdeutscher/Kamp:2005)) analysis of the German perfect that follows earlier accounts of the German tense and aspect system ((Klein:1994), (Klein:2000), (Stechow:1999), and (Musan:2002)) in assuming that all perfect tenses have the structure TENSE(PERF(VP)), where PERF is an aspect operator. We show how certain scope relations between PERF and temporal adverbs (locating adverbs as well as quantificational adverbs) can be eliminated during meaning construction such that the correct set of meanings is predicted. In particular we account for the fact that (i) a sentence like (*Paulchen ist letztes Jahr oft abgereist*) does not have all the 6 interpretations that correspond to the different scope relations between PERF, (*oft*) and (*gestern*), and (ii) the set of its possible readings differs from those of the sentences (*Paulchen war letztes Jahr oft abgereist*), (*Paulchen ist letztes Jahr oft verreist*), and (*Paulchen war letztes Jahr oft verreist*).

The interpretation process is based on an architecture that calculates meanings in two steps. First a single preliminary representation (subsuming all possible readings of a sentence) is constructed that leaves scope relations as well as certain aspects of temporal reference underspecified. This underspecification may then be (partially) resolved during the next interpretation step, which essentially consists of a process of consistent enrichment of the underspecified representations built up so far according to certain semantic principles. These principles are derived on the one hand from the lexical entries (in particular, verbs that imply target states allow for a broader range of specifications than verbs that don't). On the other hand they apply to the ways in which underspecification may be resolved (e.g., present or past perfect sentences do not allow for a location of their underlying events and at the same time but by different means of their result states), or are defined wrt. the form and content of the resulting (less underspecified) representations.

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## Double perfect constructions in German

Every perfect form in German can be expanded to a double perfect form with the participles *gehabt* / *gewesen* respectively (*Ich habe den Film schon gesehen gehabt*). The auxiliary determines which of the double perfect participles must be used. This expansion of the perfect form is also possible in reference to the pluperfect, future II (*Ich werde den Film gesehen gehabt haben*) and the subjunctive equivalents of the perfect forms (*Ich wünschte, ich hätte den Film schon gesehen gehabt*).

Whereas the double perfect is frequently regarded as a mere substitute of the pluperfect in the South of Germany, where preterite decay is common, the expansions with *gehabt* and *gewesen* are attributed a special function in the subjunctive: while 'ordinary' tense forms lose part of their temporal information when put into the subjunctive form, the double perfect may be used to express a clear reference to the past.

When describing the usage of the double perfect in German, the function of its equivalents in the subjunctive must be paid special attention. For a general interpretation of the phenomenon it is central to know whether the expansion of the structure has the same effects both in the indicative and subjunctive mood. At the same time it is of high importance

to find out to which extent the discoveries concerning the architecture of the construction and its historical genesis may be helpful in reference to the problem of preterite decay.

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### **Positional adverbials and the future use of the present perfect**

An often noted problem concerning the analysis of the present perfect is its behaviour with positional temporal adverbials like 'yesterday'. Although the present perfect denotes some kind of anteriority, it cannot be modified by certain adverbials expressing pastness in languages like English; see (1). Klein (1992) dubbed this the *present perfect puzzle*. There is a further puzzle about the adverbial selection of the (German) present perfect (cf. Rathert 2004). In its future reading, only reference time modification by positional temporal adverbials seems to be possible. In (2), there is no event time modification for a futurate reading available. In (2) the adverbial *um zwei Uhr* 'two o'clock' either specifies a past event time or a future reference time. An event time modification is not possible. The core past reading of the German present perfect allows for either event time or reference time modification by appropriate positional temporal adverbials; see (3)a/b. The goal of this paper is to explain why the future reading differs from the core past use of the present perfect. It will be shown that this difference results from the meaning composition of the present perfect.

- |     |   |                |          |
|-----|---|----------------|----------|
| (1) | *Chris has left yesterday.  | (Klein 1992)   |          |
| (2) | Um 2 Uhr hat er geschlafen.<br><i>At two o'clock had he slept</i>             | (Rathert 2004) | (German) |
| (3) | a. Jetzt/ b. Gestern hat er geschlafen.<br><i>Now/ Yesterday has he slept</i> |                | (German) |

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### **Imperatives and Tense**

Inherent future orientation is sometimes considered the distinguishing semantic contribution of imperatives. In contrast to such a simplified picture, I argue that imperatives are best treated as necessity operators that - like modal verbs - introduce both a time of possibility/necessity and a time of instantiation. This allows for a natural account of temporal modifiers and temporal quantification in imperatives, as well as a compositional analysis of the (closely related) perfect and past forms found in German and Dutch.

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### **The Paraguayan Guarani future marker „-ta“**

This talk examines the meaning of the Paraguayan Guarani future marker "-ta" in the context of the Guarani temporal system, and compares "-ta" to future markers in other languages. Four central properties of Guarani "-ta" are the following. (i) Guarani "-ta" is realized with

future time reference only (e.g. in the contexts of prediction, intention and expectation), and cannot realize an epistemic modal meaning with present time reference (unlike English "will" in "Don't worry, he'll be with his friends"). (ii) Guarani does not have past or future tenses, and "-ta" can be translated (depending on the context) with English "will" or "would", similarly to St'at'imcets "kelh". (iii) Unlike St'at'imcets "kelh", Guarani "-ta" always has universal force. (iv) In embedded clauses, unmarked verbs (which are compatible only with past or present time reference main clauses) are compatible with future time reference if "-ta" occurs in the main clause. After identifying the relevant properties of "-ta", I propose an analysis of "-ta" as a modal with a future time reference meaning component.

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### **French synthetic future**

Two related claims have been influential in Romance Linguistics literature:

1. Synthetic future tenses in spoken Western Romance are now rivalled as temporal functors by the periphrastic GO futures (Fleischman (1982), Harris (1988), Posner (1996)). Bybee et al (1994) place this proposal within a more general theory about the provenance of future tenses.
2. Synthetic futures in spoken Romance now express modal rather than temporal meaning. (Fleischman and Harris). Fleischman (supported by Bybee (1985)) sees this proposal as part of a cycle of diachronic change, wherein initially analytic verb forms expressing modal or aspectual values become future tense forms, coincidentally, becoming morphologically synthetic. The synthetic forms then develop new modal meanings consistent with their future tense status. These eventually supplant the temporal meanings, which are taken up by new analytic forms.

Data challenging both claims have been presented for French, for example by Wales (1982, 2003), Jeanjean (1988) and Gobert & Maisier (1995). Positive evidence shows the future tense continuing to express temporal meaning. Negatively, evidence of modal uses for this tense is lacking.

The temporal values of the French synthetic future are briefly illustrated from speech and newspaper data. To offset the lack of evidence on modal usage in natural data, evidence is then presented from two elicitation studies, conducted twenty years apart, of French speakers' acceptance of this form for temporal and modal meanings, and of preferences between the future tense and other verb paradigms for both meanings. The following claims find sustained support:

- a.) Languages can deploy more than one future-referring tense form, making possible different types of future-reference.
- b.) Most modal meanings ascribed to the French synthetic future are now seldom, if ever, used in contemporary speech.
- c.) The current inability of the synthetic future to refer to time of utterance accounts for b.).