Semantics of Tense and Aspect Across Languages
Proseminar in Semantic Theory (Linguistics 720)
Syllabus

Tuesday, Thursday 1:00 – 2:15
Integrative Learning Center N451

Course Instructor: Seth Cable
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1. General Overview

The purpose of this course (720) is to serve as a bridge between the first-year introductory graduate semantics courses (610, 620) and the more advanced semantics seminars. Typically, a specific subject is covered in more depth than is done in the first-year classes, but the discussion is paced at a level appropriate for second- and third-year students.

The subject of this proseminar will be semantic variation in the tense and aspect systems of the world’s languages. We will begin with a multi-week overview of some general theories and formal semantic analyses of tense and aspect. This will provide students with the background necessary for a more in-depth exploration of several major topics at the forefront of current cross-linguistic semantic research. In the first half of the course, students will be given short problem sets to aid in their understanding of the material, but these will be phased out as students focus in the second half of the semester on their final papers for the course.
General Course Outline

1. Theories and Controversies Regarding the Semantics of Tense and Aspect (Week 1-3)
2. The Nature of ‘Tenseless’ Languages and ‘Tenseless’ Main Clauses (Week 4-5)
3. The Nature of ‘Optional Tense’ Languages (Week 5-6)
4. Variation in the Semantics of Imperfective Aspect (Week 7-8)
5. Variation in the Semantics of Perfective Aspect (Week 8-10)
6. The Nature of ‘Evidential Tenses’ (Week 10-12)
7. The Nature of ‘Graded Tenses’ (Week 13-14)
8. Do Nominal Tenses Exist? (Week 14-15)

2. Course Requirements

2.1 Short Assignments

As this course is a bridge between the first-year courses and the advanced seminars, it is typical for students to receive regular weekly assignments, especially towards the beginning of the term. At first, the purpose of these assignments will simply be to ensure that all students are correctly comprehending certain crucial ideas and formalisms. As the course progresses, however, these assignments will become more open-ended and challenging, especially as they move us into the second half of the semester (Section 2.3).

Students are permitted (even encouraged) to work with one another on these assignments. However, each student is responsible for writing up their own assignment.

2.2 In Class Presentation of Assigned Reading

Each student will be responsible for presenting one of the course readings, selected from among those specially marked as potential presentation papers (see below). These papers can be found on the Moodle for the course. Students must inform me of the reading(s) they will present by the end of Week 3 (September 17th).

_Students should bear in mind that the course readings become more challenging as the semester progresses, and so there is a trade-off in waiting until the end of the semester to do one’s presentation._
2.3 Final Paper

Unless they are ‘two-papering’ the course, each student will be required to submit a final paper by December 21\textsuperscript{st}. The only rock-solid requirement on this paper is that it be a semantics paper, and that it be in some way related to issues or phenomena touched on in the course or in the readings.

Students should meet with me as early as possible regarding ideas for the topic of their paper, but no later than October 29\textsuperscript{th}. You should also let me know by this date if you intend to two-paper the course.

3. Various Dates of Interest and Importance

- September 15  Add/Drop Day for Graduate Students
- **September 17** Choose Reading for In-Class Presentation (Section 2.2)
- October 13  No Class (Monday Schedule)
- October 26  No Class (Seth Absent)
- **October 29** Choose Topic for Final Paper (Section 2.3)
- November 9  Seth’s Jury Duty – Possibly No Class
- November 11  No Class (Veterans’ Day)
- November 25  No Class (Thanksgiving Break)
- December 7  Last Class
- **December 21** Final Paper Due
- December 22  Final Grades Due (by Midnight)

4. More Detailed Overview of Course Content

The following schedule of topics and course readings is subject to change.

- Papers marked with a double-asterisk (**) are ones that may be presented by students

4.1 Theories and Controversies Regarding the Semantics of Tense and Aspect  
(Approximately Weeks 1 – 3)

This section will provide a broad overview of various fundamental concepts, formalisms, phenomena, and debates in the semantic literature on tense and aspect. Although this introduction will not be entirely comprehensive, it will provide students with the tools necessary to engage with most current literature on tense and aspect, particularly the main topics of this seminar. At the conclusion of the unit, students will have an understanding of the following key issues:

- Referential vs. Quantificational Analyses of Tense
- Temporal vs. Eventive Analyses of Aspect
- The ‘Perfect Time Span’ Analysis of Perfect Aspect
- Cessation Implicatures with Past Tense
- The Key Puzzles and Approaches Regarding Embedded Tense
4.2 The Nature of ‘Tenseless’ Languages and ‘Tenseless’ Main Clauses
(Approximately Weeks 4 – 5)

In many languages of the world, matrix clauses need not contain any (overt) morpho-syntax that we would pretheoretically label a ‘tense’. Such languages are generally referred to as being ‘tenseless’. For example, the following sentence of St’át’imcets (Lillooet Salish) contains only a predicate and subject agreement morphology.

(1) Táytkan
hungry.1sgS

*I am hungry / I was hungry / *I will be hungry. (Matthewson 2006)

Perhaps unsurprisingly, such sentences have a rather underspecified temporal orientation; the sentence above could be used to describe either past or present states of hunger.

Tenseless languages – and the tenseless main clauses they exhibit – have been a major focus of semantic (and syntactic) research. The overarching question throughout this literature is, of course, the extent to which ‘tenseless’ sentences like (1) truly lack the semantic (and syntactic) elements postulated for tensed sentences in languages like English. More narrowly, though, individual tenseless languages often differ in precisely how their ‘tenseless’ main clauses can be interpreted.
Thus, any answer to that overarching question about the nature of ‘tenselessness’ should ideally also account for this observed individual variation.

These issues are quite pervasive in the cross-linguistic literature on tense and aspect, and they resurface in several of the later of units of this course (e.g. 3, 7, 8). In this initial section, however, we will examine a few key papers that lay out both the major perspectives and some of the central empirical puzzles.

Readings:

4.3 The Nature of ‘Optional Tense’ Languages
(Approximately Weeks 5 – 6)

Many (perhaps most) of the languages that are labelled ‘tenseless’ nevertheless possess grammatical markers that can enforce a past-time construal of the sentence. For example, in the Tlingit language, the verbal suffix -een can combine with a ‘tenseless’ verb to create a sentence that can only describe past states and events (Cable 2017).

(2) a. Kuwak’ëi.  b. Kuk’ëiyeen.
   IMPFV.good.weather  IMPFV.good.weather.PAST
   The weather is/was nice.   The weather was nice (but turned bad)

The question naturally arises, then, of whether these optional ‘past’-markers should be analyzed as akin to past-tenses in (obligatorily) ‘tensed’ languages like English. More broadly, though, we should seek to understand what exactly the syntactic and semantic differences are between sentences like (2a) and (2b) in particular ‘tenseless’ languages, and how this informs our broader theory of both ‘tenselessness’ and the nature of past-tense (Bochnak 2016, Cable 2017).

The debate around these questions centers empirically on a number of puzzling ways in which these optional past-markers seem to differ semantically from past-tenses in obligatorily tensed languages. For example, as the free English translation in (2b) suggests, the past-suffix -een in Tlingit appears to contribute more than just past temporal reference, and also strongly implies that the state/event in question subsequently changed. This kind of inference – sometimes dubbed ‘change-of-state’ or ‘discontinuity’ – is a pervasive feature of these optional past-markers across languages. Thus, we should seek to understand whether it is semantically encoded in the meaning
of these suffixes, or arises via pragmatic reasoning – and if the latter, exactly what pragmatic mechanisms account for this ‘discontinuity’ inference (Bochnak 2016, Cable 2017).

In addition to such ‘discontinuity’ inferences, though, some authors have documented yet further semantic contrasts between English past-tense and these (optional) past-markers in tenseless languages (Chen et al. 2021). Again, though, the question remains of whether these contrasts point to a deep difference in their syntactic/semantic status, or whether they may instead follow from certain independently observable parametric differences between tensed languages (Chen et al. 2021).

Readings:

4.4 Variation in the Semantics of Imperfective Aspect
(Approximately Weeks 7 – 8)

As we will review in the first unit, many languages exhibit a verbal morpho-syntactic category known as ‘aspect’, and one major value of that category is ‘imperfective’. As illustrated below for Tlingit, verbs bearing imperfective aspect canonically describe either on-going states, on-going events, or habitualities.

(3)  

<p>| | |</p>
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<tbody>
<tr>
<td>a.</td>
<td>asixán</td>
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<td></td>
<td>3O.IMPRV.3S.love</td>
</tr>
<tr>
<td>She</td>
<td>loves him.</td>
</tr>
<tr>
<td>b.</td>
<td>al’êêx</td>
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<td></td>
<td>IMPRV.3S.dance</td>
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<tr>
<td>He is dancing / He dances.</td>
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A major question in the semantic literature on aspect is how these three readings/uses of imperfective aspect arise from a single, unified lexical entry. One of the factors informing debate around this question are the ways that languages do – and do not – specially mark particular imperfective construals. For example, in English, the ‘ongoing event’-interpretation of (3b) can only be expressed through ‘progressive’ marking (4a), while in Hindi, the ‘habitual’-interpretation of (3b) can only be expressed through ‘habitual’ marking (4b).

(4)  

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>a.</td>
<td>He is dancing.</td>
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<tr>
<td>b.</td>
<td>Yusuf skuul jaa-taah</td>
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<tr>
<td></td>
<td>Yusuf school go-HAB be.PRES</td>
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<tr>
<td></td>
<td>Yusuf goes to school. (Ferreira 2016)</td>
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Thus, a related goal in the literature on aspect is to understand the precise way in which general ‘imperfective’ marking, as in (3), is related syntactically/semantically to more specific ‘progressive’/‘stative’/‘habitual’ markers, as in (4) (Deo 2009, Ferreira 2016).
Furthermore, in many languages exhibiting general, ‘imperfective’ morphology (3), that marking can receive interpretations beyond the canonical ‘ongoing-event/state’ and ‘habitual’ ones. This has led some to even propose that ‘imperfective’ morphology as such has no inherent semantics, and is simply a kind of morpho-syntactic ‘default’ aspect, which arises in certain constructions. Arregui et al. (2014) argue against this view, and aim to show how one particular, unified semantics for imperfective can also account for these more unusual, specialized uses.

Readings:

Additional, Optional Reading:

4.5 Variation in the Semantics of Perfective Aspect
(Approximately Weeks 8 – 10)

Alongside ‘imperfective’, a second major aspectual value is ‘perfective’. For decades (perhaps over a century), linguists have informally characterized perfective aspect as ‘presenting an event as a completed whole’. One reason for this is that, in many languages, telic verbs bearing perfective aspect entail that the event they describe has ‘finished’, or ‘culminated’. Thus, in English, a past-perfective sentence like (5a) cannot be felicitously followed by a statement that the event did not continue to completion (5b).

(5) a. Dave ate the sandwich.
   b. # Dave ate the sandwich, but he didn’t finish it.

In more recent years, however, it’s been found that in some languages, morphology that otherwise exhibits the hallmarks of being ‘perfective’ does not actually trigger the ‘culmination’ entailment seen in (5). That is, in many languages, discourses that seem morphologically parallel to (5b) are nevertheless entirely felicitous.

This naturally raises the question of exactly what is the nature of sentences akin to (5a) in languages where discourses like (5b) are possible, and how do they differ from ‘perfective’ sentences in languages like English (5a). Two general approaches are imaginable and have been pursued. First, it may be that the telic predicates themselves differ in these languages; thus, what it means to ‘eat a sandwich’ may actually differ slightly across languages (Singh 1998, Bar-El et al. 2005). Alternately, it may be that the aspectual form dubbed ‘perfective’ in these languages differs in essential ways from perfective aspect in languages like English (Altshuler 2014).

Indeed, some have proposed that languages allowing discourses like (5b) do not truly have ‘perfective’ aspect at all, but instead a category that could be called ‘neutral’ aspect. Against this, Altshuler (2014) develops a semantic typology of aspectual operators, one that accounts for the
possibility of discourses like (5b) in certain languages, while still viewing the aspect in question as being ultimately ‘perfective’ in nature. As Altshuler shows, this theory also correctly predicts the existence of languages where certain imperfective forms seem to show the ‘culmination’ entailment of perfective; in these languages, discourses akin to (6) below are reported to be infelicitous / contradictory.

(6) Bill was arriving at the house, but a car hit him, and he never made it to the door.

Readings:

4.6 The Nature of ‘Evidential Tenses’
(Approximately Weeks 10 – 12)

Some languages exhibit morphological marking that seems to bundle together both information about when the event took place and information about how the speaker came to know about the event. For example, in Cuzco Quechua, past events can be described using either the suffix -sqa or -rqa, and the choice communicates whether the speaker directly witnessed the past event.

(7)  
\begin{align*}
\text{a. } & \text{Parasha}sqa & \text{b. } & \text{Parashar}qa \\
\text{rain.PROG.PastIndirect} & \text{rain.PROG.PastDirect} \\
\text{It was raining} & \text{It was raining} \\
\text{(Speaker was told/infers)} & \text{(Speaker directly perceived it)} \quad \text{(Faller 2004)}
\end{align*}

Such markers are sometimes referred to as ‘evidential tenses’, since they combine the semantic features of both tense (temporal location) and ‘evidentials’ (how the event/state is known).

Naturally, we should seek to understand exactly what the semantics of these ‘evidential tense’ markers are, and precisely how they differ in their syntax/semantics from pure tenses. In the formal semantic literature, two general perspectives have emerged, both of which view ‘evidential tenses’ as being semantically/syntactically akin to pure tenses, but differing in one core dimension. Under the first general approach (Faller 2004), ‘evidential tenses’ are claimed to differ from pure tenses in that they both (i) relate the time of the event to the time of speech (tense), and (ii) relate the location of the event to the ‘speaker’s perceptual field’ (evidential). Thus, while both (7a) and (7b) state that the time of the event is in the past, (7b) states that the location of the event overlapped the ‘perceptual field’ of the speaker (and so was directly witnessed), while (7a) states that this overlap did not hold (and so the event was not directly witnessed).
However, a second general approach to these markers takes them to be strictly temporal in nature, but to relate the time of the event to the time the speaker learned of the event (Lee 2013, Smirnova 2013). Under this approach, a sentence like (7b) would state that the time of the event overlapped the time the speaker learned of it (and so the event was directly witnessed), while (7a) states that this overlap does not hold (and so the event is known only indirectly).

Perhaps unsurprisingly, the arguments for or against each approach depend upon specific details regarding these markers in particular languages, especially how they interact with other verbal morphology. Consequently, it may turn out that these ‘evidential tenses’ have rather different natures across languages.

Readings:

4.7 The Nature of ‘Graded Tenses’
(Approximately Weeks 13 – 14)

Traditionally, the category of ‘tense’ is held to encompass the three-fold distinction between ‘past’, ‘present’, and ‘future’. However, in many languages, tense morphology appears to make finer distinctions, and additionally serves to indicate how far into the past or future a given event occurs. Such languages are sometimes said to have ‘graded tense’ systems. For example, in the Kikuyu language, the choice between the ‘current past’ marker -kũ- and the ‘near past’ marker -ra- depends upon whether the event occurred on the day of speaking or on a day prior to that.

\[(8)\]
\[a. \quad \text{Mwangi} \quad \text{nǐěkũinaga.} \]
\[\text{Mwangi} \quad 3sgS.\text{CurPast.dance.IMPRV} \]
\[\text{Mwangi was dancing (within the day).} \]

\[b. \quad \text{Mwangi} \quad \text{nǐarainaga.} \]
\[\text{Mwangi} \quad 3sgS.\text{NearPast.dance.IMPRV} \]
\[\text{Mwangi was dancing (within the last few days).} \] (Cable 2013)

Despite extensive study by descriptive grammarians, graded tense systems have not received much attention from formal semanticists. Cable (2013) provides in-depth study of the rather elaborate graded tense system of Kikuyu. Cable argues that, contrary to traditional description, these morphemes are not actually ‘tenses’, in the sense that semanticists apply that label. That is, unlike ‘true tenses’, the ‘graded tenses’ of Kikuyu do not restrict the relation between the speech time and a (contextually salient) ‘topic’ time, but instead directly relate the speech time to the time of
the event. Consequently, Cable puts forth a compositional semantics where these morphemes do not appear within the TP of Kikuyu, but instead sit in a lower position closer to the verbal and aspectual projections. This analysis raises the question of whether ‘true tenses’ can ever be shown to be ‘graded’.

Subsequent formal semantic literature on ‘graded tenses’ has not engaged with this latter question, but has instead explored other interesting and important issues related to their meaning. Bochnak & Klecha (2018) explore and analyze the ways in which the temporal distances signaled by the graded tenses of Luganda can vary from context-to-context, while Mucha (2017) documents and analyzes the ways that an especially rich system of graded tenses behaves within an optional tense language (Medumba).

Readings:


4.8 Do Nominal TensesExist?

(Approximately Weeks 14 – 15)

‘Tense’ is almost universally described as a verbal or clausal morphological category. However, it is not a priori obvious why this should be the case. After all, as has long been recognized, both verbs and nouns are interpreted relative to a particular time (i.e., the ‘evaluation time’). Indeed, sentences like those in (9) show that, within a single sentence, the evaluation time of an NP and a VP can seem to differ.

(9) a. [My wife] was born in Oregon.
b. [All of the fugitives] have been apprehended.

These facts raise the question of whether any languages exhibit something that could be described as a ‘nominal tense’, i.e., morphology that functions to restrict the evaluation time of an NP, just as how tense restricts the evaluation time of the main predicate.

This question was famously answered ‘yes’ by Nordlinger & Sadler (2004), who argue that such ‘nominal tenses’ do indeed occur in the languages of the world. However, Tonhauser (2007) takes a closer look at one of their main examples, the adnominal past- and future-marking of Guarani. Tonhauser documents many rather subtle features of the semantics of these morphemes, and provides a formal compositional semantics. A direct consequence of that semantics, however, is that these so-called ‘nominal tenses’ are actually very different in nature from (true) verbal/clausal tenses, and perhaps do not deserve the label ‘tense’ at all.
On the other hand, Thomas (2014) examines the ‘nominal tenses’ found in Mbya, a language very closely related to Guarani. Crucially, in Mbya, the nominal tense-markers can also appear with verbs, in which case they function precisely like regular verbal/clausal tenses. Consequently, Thomas (2014) puts forth a unified semantics for these markers in Mbya, one in which they are identical in nature to verbal tenses in obligatorily tensed languages like English. Most importantly, under Thomas’s analysis, the special properties of the adnominal uses of these tenses – which led Tonhauser (2007) to differentiate them from ‘true’, verbal tenses – derive from a single, core pragmatic principle. The resulting analysis thus again raises the question of whether ‘nominal tenses’ truly exist.

Readings:

Additional, Optional Reading: