

A uniform treatment of tense under attitudes

Gennari (2003)

1. Previous uniform and non-uniform approaches to tense under attitudes.

■ Previous UNIFORM approaches:

- DEICTIC approach / Indexical view: Tenses are uniformly interpreted solely wrt s^* . But recall from previous handout: this derives a spurious reading for (1) and fails to derive a correct reading for (2).

(1) **Gordon said that Josephine was pregnant.**

(2) **(Tomorrow when he arrives late) John will say that he fell asleep on the bus.**

- RELATIVE view: Tenses are uniformly interpreted wrt the local evaluation time, which is s^* for matrix tenses and the subjective now for tenses under attitudes. But this can't account for the simultaneous reading in (3) or the double access reading in (4).

(3) **The secretary believed that the senator was happy.**

(4) **John said that Mary is pregnant.**

■ Previous NON-UNIFORM approaches:

Embedded tenses make a different semantic contribution than that of their matrix counterparts: some embedded tenses are semantically vacuous. The mechanisms allowing embedded tenses to be semantically vacuous vary: anchoring conditions in Enc 1987, transmission mechanism in Abusch 1997, deletion in Ogihara 1996 and in this seminar.

Furthermore, for double-access readings, a de re analysis is proposed.

■ Problems with the previous non-uniform approaches (Gennari 2003):

- ❶ The Aktionsart of the embedded predicate has an impact on the prior / simultaneous ambiguity: ambiguous (3) vs unambiguous (5). The deletion rule predicts ambiguity regardless of the Aktionsart.

(5) **The secretaty believed that the senator called her.**

- ❷ In double-access readings, the res state does not need to hold at s^* : (6). In fact, there does not need to be a res state to which the embedded CP property is assigned: (7).

(6) Scenario: Bill sees Mary wearing a loose dress at a party that makes her look pregnant. The party and the dress are over at s^* .
Bill believed that Mary is pregnant.

(7) **The detective reasoned (concluded) that the murderer is still in town.**

- Gennari (2003) pursues a uniform treatment where matrix and embedded tenses have exactly the same contribution and where the shortcomings ❶ and ❷ are avoided.

2. Past tense: the effect of Aktionsart on the prior/ simultaneous ambiguity.

■ Verkuyl's Aktionsart classes:

- (8) States: **be sad, be happy, know**
 Activities: **run, walk, talk**
 Achievements: **reach the summit, arrive, die**
 Accomplishments: **solve a problem, build a house**

■ Impact of Aktionsart on the prior / simultaneous ambiguity in English:

- (9) **The secretary said that**
 a. **the president was sad.**
 b. **the president was arriving.**
 c. **the president arrived at 9pm.**
 d. **the president prepared the speech.**
 e. **the president worked hard.**
- (10) **The president decided that in ten days he would say to his party that**
 a. **he was in trouble.**
 b. **they were having their last meal together.**
 c. **his lawyers left him.**
 d. **his friends asked for more money.**
 e. **his executive committee talked too much.**

(11)

Progressive	STATIVE SENTENCES ✓ simultaneous reading
State	
Habitual activity	EVENTIVE SENTENCES * simultaneous reading
Episodic activity	
Achievement	
Accomplishment	

■ Impact of (Im)perfectivity on the prior / simultaneous ambiguity in Spanish:

- (12) **Juan dijo que María estaba enferma.**
 J said-psrt-perf that M be-past-IMPERFECT sick
 'Juan said that Maria was sick' ✓ simultaneous, ✓ prior

- (13) **Juan dijo que María estuvo enferma.**
 J said-psrt-perf that M be-past-PERFECT sick
 'Juan said that Maria was sick' * simultaneous, ✓ prior

■ The stative vs. eventive distinction has an impact on simultaneity in simple modal contexts as well.

- (14) **The president may / must be at home (now).** ✓ simultaneous to s*
 (15) **The president may / must leave (now).** * simultaneous to s*

- More generally, in discourse, stative sentences usually yield simultaneous readings wrt the time of the previous sentence, whereas eventive sentences typically generate sequential readings.

(16) **Mary went to see the president this morning. He was sick.**
 ✓simultaneous to going time (and spreading before and after)

(17) **Mary went to see the president this morning. She asked him questions about the project.**
 ✓sequential after the going time

- Entailments about subintervals and normal assumptions about superintervals:

(17) About subintervals:
 a. A sentence Q(i) is stative iff it entails that Q is true at all instants within i.
 b. A sentence Q(i) is an activity iff it entails that Q is true at all instants within i down to a certain limit of size.
 c. A sentence Q(i) is an achievement / accomplishment (a telic event) iff it entails that Q is false at all proper subintervals of i, where i is the minimal interval at which the change of state takes place.

(18) Superinterval property:
 A sentence Q(i) is said to have the superinterval property if the normal assumption is that Q is true at a larger interval surrounding i.

States ("inertia"), progressives, habitual activities ⇔ Superinterval property

Episodic activities ("no inertia"), achievements, accomplishments
 /⇒ Superinterval property

- Analysis of past embedded under past:
 Past tense is never deleted and it always means the same: (19).
 Stative embedded sentences are not really ambiguous, but their superinterval property makes them vague so that they are true in prior and simultaneous scenarios: (20).
 Eventive sentences are also not ambiguous. Lacking the superinterval property, their truth conditions are less vague and only compatible with prior scenarios: (21).

(19) **[[PAST]]** = $\lambda Q_{\langle i, t \rangle} . \lambda i . \exists i' [i' < i \ \& \ Q(i')]$

(20) **John said Mary was sick.**
 $\exists i [i < s^* \ \& \ \text{say}(i, j, \lambda i' . \exists i'' [i'' < i' \ \& \ \text{be-sick}(i'', m)])]$

(21) **John said Mary went to the party.**
 $\exists i [i < s^* \ \& \ \text{say}(i, j, \lambda i' . \exists i'' [i'' < i' \ \& \ \text{go-to-party}(i'', m)])]$

QUESTION 1: Gennari's main tenet is that matrix and embedded tenses receive a uniform account. This invites us to compare the superinterval effect --and the subsequent simultaneous reading-- of the indirect attitude report in (20) with that of the direct report in (22). Does the simultaneous interpretation feel the same?

(22) **John said: "Mary was sick".**

3. Present tense: the double-access reading and the simultaneous readings

■ Recall the data:

- (23) Present under past:
Bill believed Hillary is pregnant. Double-access reading only
- (24) Present under present/future:
Bill will announce that Hillary is pregnant (when she is). Double-access and simultaneous reading

■ Analysis

Present tense is never deleted and it always means the same. It requires the event time i of its proposition (a) to overlap with the local evaluation time, and (b) not to be wholly located before s^* .

When embedded under past, these two requirements will conspire to force a double-access feeling: (26).

When embedded under present/future, the two requirements will be easier to satisfy together, so that the double-access feeling does not necessarily arise: (27).

$$(25) \quad \llbracket \text{PRES} \rrbracket = \lambda Q_{\langle i, t \rangle}. \lambda i. \exists i' [i' \circ i \ \& \ \neg(i' < s^*) \ \& \ Q(i')]$$

- (26) **Bill believed Hillary is pregnant.**
 $\exists i [i < s^* \ \& \ \text{believe}(i, b, \lambda i'. \exists i'' [i'' \circ i' \ \& \ \neg(i'' < s^*) \ \& \ \text{be-pregnant}(i'', h)])]$
 \Rightarrow Double-access feeling: i'' overlaps with the past believing time i and, since it cannot wholly precede s^* , i'' must also overlap with s^* .

- (27) **Bill will announce that Hillary is pregnant.**
 $\exists i [i > s^* \ \& \ \text{announce}(i, b, \lambda i'. \exists i'' [i'' \circ i' \ \& \ \neg(i'' < s^*) \ \& \ \text{be-pregnant}(i'', h)])]$
 \Rightarrow No mandatory double-access feeling: i'' overlaps with the future believing time i , from which it follows for free that i'' cannot fully precede s^* .

QUESTION 2: Do (26)-(27) entail that the subject's belief / announcement includes a statement about the actual s^* ? Discuss.