

Factors licensing embedded present tense in speech reports

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Introduction According to Ogihara (1995), the truth of the complement in (1) at the actual utterance time n (i.e. when (1) is uttered) is not a prerequisite for the use of an embedded present tense. What matters is the cause of the belief (the state that made John think that Mary is in the room): the present tense can be used only if this cause still holds at n .

(1) John said that Mary is in the room.

Empirical evidence suggests that this hypothesis (KEY OBSERVATION) is only one of the factors involved in licensing a felicitous usage of the embedded present. We present two experiments which show that the cause of belief still holding is a sufficient, but not a necessary factor. We identify two additional factors (predicate type and who is aware of the falsity of the belief). These factors collectively suggest that the old idea of ‘current relevance’ (Costa 1972, McGilvray 1974) is right and cannot be translated into one single concrete factor (contra prevailing theories) but rather corresponds to a cluster of factors. Thus, this paper presents a case study of how the applications of experimental methods (see also Altshuler et al. 2015 for a related corpus study) may lead to different kinds of theories than introspection-based ones.

Background Ogihara (1995) considers various contexts for (1), a present under past sentence. He motivates the KEY OBSERVATION by comparing (2a) with (2b).

(2) John and Bill are looking into a room. Sue is in the room.

John (near-sighted): ‘Look! Mary is in the room.’

Bill: ‘What are you talking about? That’s Sue, not Mary.’

a. John: ‘I’m sure that’s Mary.’

One minute later, Kent joins them. Sue is still in the room.

Bill (to Kent): ‘**John said that Mary is in the room.** But that’s not true. The one that is in the room is Sue.’

b. John: ‘I’m sure that’s Mary.’

Sue leaves the room. One minute later, Kent joins them.

Bill (to Kent): # ‘**John said that Mary is in the room.**’

Klecha (2015) questions the KEY OBSERVATION with the counterexample in (3):

(3) Mary puts a balloon under her shirt. John then observes her in this state, and then says to everyone: ‘Mary is pregnant!’ Later that day, Mary takes the balloon out from under her shirt and pops it. Bill, aware of everything that happened, says to Mary: ‘(Earlier today,) John told everyone that you’re pregnant.’

In this scenario, the cause of John’s belief that Mary is pregnant, i.e. the balloon under her shirt, is absent by the time of Bill’s report. Nevertheless, the present tense is acceptable. Why should this be? A direct comparison of (2) and (3) reveals a key set of factors that might play a role in the acceptability: the use of the verb of speech (*say* versus *tell*), whether or not the audience of the reported utterance still believes the complement, and the duration of the state in the complement (being in a room vs. being pregnant). To arrive at a better understanding, we conducted two experiments to investigate the effect of each of these factors.

Exp1: rating task The experiment followed a fully-crossed 2 x 2 x 2 x 3 design, with Latin square presentation of stimuli lists. There were two between-subject factors (MATRIX VERB

(*say* vs. *tell*) and TENSE OF EMBEDDED VERB (past vs. present)) and two within-subject factors (PREDICATE TYPE (individual-level vs. stage-level)) and WHO WAS AWARE of the fact that it was a false belief (A: the reporter alone; B: the reporter and the reported speaker; C: the reporter, the reported speaker, and the audience). For each of the between-subject conditions there were 12 experimental items, divided equally among the within subject factors.

Each item began with a brief scenario introducing two key individuals (Ind-1, who becomes the Reporter, and Ind-2, who becomes the Reported Speaker) and some friends, the Audience. Ind-2 remarks aloud to Ind-1 that an Ind-3 has an I-level or S-level property P , an exclamation acknowledged by the entire group. The scenario then diverges based on who is aware of the falsity of the belief in 3 conditions: (A) only the Reporter (Ind-1), (B) both the Reporter and the Reported Speaker (Ind1+2), (C) the Reporter, Reported Speaker and the entire group. All items ended with the target sentence indicating that a few minutes later, another person (Ind-4), who is not part of the group, arrives. Ind-1 reports to Ind-4: “You won’t believe this, but «Ind-2 [told us/said] that Ind-3 [was/is] P ».” Participants ($n=88$) were asked to rate the acceptability of the target sentence in « » on a 5-point scale.

Exp2: forced choice task To complement the acceptability ratings from Exp1, we conducted a forced-choice task, in which participants ($n=41$) explicitly had to choose between present and past tense for the embedded clause. The items had the same structure as in Exp1, but the matrix verb was always *tell* since the matrix verb was not a significant factor in Exp1.

Results The main results indicated:

- (i) In both experiments: no interaction between item type (test vs. control) and tense ($p>.05$). In particular, present tense is not significantly better in the control items (with the cause of belief present) than in the test items (with the cause of belief absent). Thus, – contra the KEY OBSERVATION – the cause need not still be present for the use of a present tense;
- (ii) In both experiments: the past is significantly preferred over the present with stage level predicates ($p<.01$). In Exp2 there was also a strong preference for the present with individual level predicates ($p<.001$). This is consistent with the contrast between (2b) and (3);
- (iii) In Exp1: if everyone is aware that the complement is false (condition C) the past tense is significantly better than the present tense ($p=.04$). Thus, when the falsity of the belief is common knowledge, the present tense is less acceptable.

Discussion The factors above motivate the following three sufficient (but not necessary) conditions for a felicitous use of the present tense: (i) the cause of belief holding at the actual utterance time n (KEY OBSERVATION); (ii) if, had the complement been true at the time of the report, it would still hold at n (predicate type effects); (iii) the audience of the original utterance still having this belief at n (knowledge condition effects). Note that (iii) indicates that tracking other people’s beliefs affects our choice of grammatical morphemes, even in the case of beliefs of people who are not participating in the actual conversation. We discuss the implications of these findings for the (use of the) notions of acquaintance relations (Abusch 1997, Ogihara 1995) or time concepts (Heim 1994) adhered to in the prevailing theories to explain the KEY OBSERVATION. We stress that (i)–(iii) form a natural class: they all indicate what must hold at n , suggesting that the long-standing intuition of ‘current relevance’ corresponds to a cluster of factors rather than one single concrete one.