

Modal comparatives: a cross-linguistic picture

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Building on recent analyses of assertions with various provisos on speaker's certainty (Davis, Potts and Speas 2008, Barker 2009, Fintel and Gillies 2010, Lassiter 2016) we address a rarely discussed class of clausal modal comparatives (MC) that use temporal adverbs, such as the Romanian *mai degrabă* 'sooner/rather' (lit. 'more early') in (1). In these structures, the speaker compares two propositions p = 'John is at home' and q = 'John is in the office' and asserts that she is more willing to believe p than q .

- (1) Ion este **mai de-grabă** acasă decât la birou. Romanian
 John be-3.PRES.INDIC.SG more ADV-early home than at office
 = 'According to the speaker, it is more plausible that John is at home than that he is in the office.'

The contribution of our investigation is two-fold. Empirically, we extend the scope of inquiry into MCs. We analyze novel facts about their distribution using general principles of UG and independent phenomena. Theoretically, the paper further supports treating the world argument as a syntactically visible entity that comes in (at least) bound and indexical varieties, similarly to pronouns and times (e.g. Speas 2004).

I. MODAL COMPARATIVES CROSS-LINGUISTICALLY. A cross-linguistic investigation indicates that the MC picture is more complex. Excepting languages of the English type, where temporal adverbs, such as *sooner* (or *rather*), cannot be used in MCs (see 2), we make two novel observations: (A) *There are i) languages that allow modal comparatives with simple indicative present – see Romanian (1), etc. (Type I), and ii) languages that cannot use the indicative present, like Italian (Type II); (B) The Italian-type (Type II) languages instead require overt modal support*, as the COND/FUT in (3):

- (2) *John is **sooner/rather** at home than in the office. English
 Intended: 'According to the speaker, it is more plausible that John is at home than in the office.'
 (3) Gianni *è/sarà/sarebbe a casa **piuttosto** che in ufficio. Italian
 Gianni is/be.FUT.3.SG/be.COND.PRES.3.SG at home rather than in office
 'According to the speaker, it is more plausible that Gianni is at home than in the office.'

Based on data from Romance, Germanic and Slavic, we propose the unidirectional correlation in (4).

(4) **Modal comparative correlation:** *SOT languages do not allow MCs with simple indicative present.* All non-SOT languages investigated (Type I - Romanian, Bulgarian, Russian, Slovenian, German) permit MCs with the indicative present. In SOT-active languages, MCs (based on temporal adverbs) must either use modal support (FUT, COND, etc. – Italian, Spanish, French, Type II), or are not possible at all (English).

II. ANALYSIS. We follow Herburger and Rubinstein's (2014) LF structure for MCs in (5):

- (5) [[-er [(than) EPIST [PRES [John be at office]]]] [EPIST [PRES [John be at home]]]]

We assume that EPIST is quantificational – it supplies an epistemic modal base and carries an 'indirectness presupposition' requiring that both p and q not be directly settled by the speaker's knowledge. Being quantificational, EPIST must respect the ban on vacuous quantification, i.e. to be well-formed EPIST must bind a world-variable in its scope. We argue that this well-formedness condition is fulfilled in Type I languages. But it is violated in Type II languages resulting in the unavailability of modal comparatives with simple indicative present. We further build on Sharvit's (2003, 2008) account of the SOT phenomenon, and the *Embeddability Principle*. This principle requires that all well-formed sentences must be able to be embedded with a simultaneous interpretation, a process which is achieved via binding of the time variable (informally). In non-SOT languages, PRES can be bound allowing the simultaneous reading (see 6). In SOT languages, PRES is indexical (set by the context to overlap with the utterance time), thus cannot be bound, making the simultaneous reading unavailable (7a). The SOT rule rescues the structure by deleting an embedded PAST feature under agreement and creating the relevant configuration for binding (see 7b).

- (6) non-SOT: [PAST [John [say [λ_1 [PRES₁ [Mary be here]]]]]] (simultaneous)
 (7) SOT: a. [PAST [John [say [PRES^{INDX} [Mary be here]]]]] (*simultaneous)
 b. [PAST [John [λ_1 [say [PAST₁ [Mary be here]]]]]] (simultaneous)

We extend this analysis by arguing that PRES also comes with a world argument (w). In Type I languages where PRES is non-indexical, the world-argument may be bound by EPIST. Therefore, modal comparatives are well-formed with the indicative present. In Type II languages (Italian, etc.), the world-argument of PRES^{INDX} is set by the context. As a result, EPIST quantifies vacuously resulting in the ungrammaticality of modal comparatives with the indicative present. However, the structure can be rescued by the addition of overt modality, further assuming Condoravdi (2003).

SELECT REFERENCES. **Sharvit**, Y. 2003. Embedded tense and Universal Grammar. *LI* 34:669-681. **Sharvit**, Y. 2008. The puzzle of free indirect discourse. *Linguistics and Philosophy* 31: 353-395. **Davis**, C., **Potts**, C., and **Speas**, M. 2008. The pragmatic values of evidential sentences. *Proceedings of SALT 17*. von **Fintel**, K., and **Gillies**, A. 2010. Must...stay...strong. *Natural Language Semantics*. 18(4): 351-383. **Herburger**, E. and **Rubinstein**, A. 2014. Is 'more possible' more possible in German? *Proceedings of SALT 24*: 555-576.