

## Operators in the TP-domain and Aspectual Interpretation

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The focus of this paper is a syntactic account of so-called *stativizing negation* exemplified in (1). Durative adverbials are unacceptable and punctual adverbials are acceptable in (1a); when negated, the inverse compatibility patterns obtain (1b).

- (1) a. *John arrived*            *#until 5PM/#for an hour/finally.*  
       b. *John didn't arrive*    *until 5PM/for an hour/\*finally.*

We argue that negation (i) does not *stativize* but contributes to an exhaustive description of reference time; and (ii) must be in the TP-domain at LF for this exhaustive reference time effect (ERTE) to obtain; other TP-level operators also yield ERTE.

First, contrast bare duratives (2) with the duratives from (1b); the former cannot identify the reference time, only the event run time (Morzycki 2004), and are thus incompatible with negated punctual predicates. As bare duratives are unacceptable in the *do so* construction (3a), while *for-* and *until-*PPs are fine (3b), the former must be inside VP and the latter outside *vP*; thus, ERTE (1b) obtains higher than *vP*.

- (2) a. *John didn't spot a plane* *\*three hours.*  
       b. *John didn't arrive*        *\*three hours.*  
 (3) a. *??John walked three hours and Bill did so four hours.*  
       b. *John walked for an hour/until 3PM and Bill did so for 2/until 4PM.*

In support of claim (ii), consider Hungarian, where two different constructions exist featuring negation in *until*-clauses. Negation in (4a) behaves like matrix (predicate) negation, licensing clause-mate NPIs and making punctual time adverbs illicit, while negation in (4b) has the opposite, exceptional properties:

- (4) a. *Maradok, ameddig*        *Emma/senki*        *nem jön át*        (*\*végre*)  
       I-stay    Dem-Wh-until   Emma/nobody   Neg   comes over   (finally)  
       b. *Maradok, ameddig*        *Emma/\*senki*        *át nem jön*        (*végre*)  
       I-stay    Dem-Wh-until   Emma/nobody   over   Neg   comes (finally)  
       'I'll stay until Emma comes over.'

While the (4b)-type properties of negation in *until*-clauses have been attributed to “expletive negation” (e.g. Brown&Franks 1997), we propose instead that negation in (4b) has LF-raised to a position outside the TP-domain (cf. Abels 2005), where it is too high to license negative quantifiers or achieve the ERTE. Covert Neg-raising is evidenced by the fact that negation in the (4b)-construction scopes outside sentence adverbs (5) and also focus (not shown here):

- (5) a. *Maradok, ameddig*        *Emma*        *biztosan*        *nem alszik el.*  
       I-stay    Dem-Wh-until   Emma    certainly    Neg   sleeps   PRT  
       Adv>Neg 'I'll stay during the period for which it's sure that Emma will not fall asleep.'  
       b. *Maradok, ameddig*        *Emma*        *biztosan*        *el nem alszik.*  
       I-stay    Dem-Wh-until   Emma    certainly    PRT   Neg   sleeps  
       Neg>Adv: 'I'll stay as long as it is not true that Emma has certainly fallen asleep.'

We conclude that negation must be in the TP-domain *at LF* to result in ERTE. The TP domain (i.e. tense/outer aspect) is associated with reference time (cf. Csirmaz 2008, Demirdache&Uribe-Extbarria 2004, 2007). To make claim (i) explicit: high durative adverbials specify the reference time, and negation contributes to its exhaustive description, which in (1b) can be intuitively characterized as follows: for reference time  $r$ =one hour, there is no time  $t$  ( $t \in r$ ) such that John arrived at  $t$ . Observe that *only*-focus also shows the ERTE (6), meaning: for reference time  $r$ =one hour, for any  $t$  ( $t \in r$ ) such that  $x$  arrived at  $t$ ,  $x$ =John. The replacement of “stativizing negation” by the ERTE is supported by examples featuring universal quantifiers, also compatible with reference time-level duratives (7):

- (6) For an hour, only John arrived. / Only John arrived for an hour.  
 (7) For a week, every student failed the exam. / Every student failed the exam for a week.

The claim that ERTE obtains when the operator responsible for the exhaustive description of the reference time is local to T *at LF* is further supported by (8):

- (8) *London is the only place that John says that Mary has visited for two years.*  
 Low reading: John says that Mary has visited only one place for two years, and this one place is London.

The operator portion of the *only*-focus (cf. Heycock 2005) must be in the lowest clause at LF to yield the “low reading” in (8). When this reading is available, the *for*-adverbial is also grammatical, showing that it is the LF-position of the operator that yields the ERTE.

We conclude by contrasting low and high occurrences of durative adverbials in terms of specificity and exhaustivity, to explain why durative adverbials identifying the reference time (rather than predicating of the event) require an exhaustive description in their scope.

## References

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