Aspectual and quantificational properties of locative verbs

Denominal locative verbs are of two kinds: *locatum* and *location* verbs, exemplified in ((1)a) and ((1)b) respectively:

    (1) a.   Sue saddled the horse (≈ "Sue fit the horse with a saddle")
        b.   John shelved the books (≈ "John put the books on a shelf")

These verbs have been analyzed within syntactic theories of argument structure in relation with aspect and its connection with argument structure. Hale and Keyser (1993, 2002) endorse that aspect is orthogonal for argument structure, and propose that locative verbs involve two different structures, one of them containing a preposition that expresses a central coincidence relation, *locatum* verbs, and the other cointaining a preposition that expresses a terminal coincidence relation, a *location* verb, independently from their aspectual properties. Harley (2005) puts forth an analysis whereby the aspectual properties of both types of verbs derive from the (conceptual) (un)boundedness of the root they embed, following the hypothesis that aspect derives from non-configurational semantic properties. Finally, Mateu (2008) follows the idea that prepositions determine the telicity/atelicity of the predicate and proposes that telic locative verbs, either location or locatum, feature a preposition of terminal coincidence, and that atelic locative verbs, which are only locatum, feature a preposition of central coincidence.

    In this work we revamp the classic Halekeyserian analysis of locative verbs whereby location and locatum verbs involve two different structures, but we take into account the (a)telicity properties of these verbs. Our proposal departs from the observation that locatum and location verbs do have different aspectual properties (*contra* Mateu 2002, Harley 2005). The aspectual interpretation of locatum verbs depends on the mass/count interpretation of the embedded root: locatum verbs are atelic if the embedded root is construed as a mass ((2)a) and are telic if the root is construed as a count entity ((2)b).

    (2) a. L'Elna   ha en-vinagrat   l'amanida durant/#en cinc   minuts
               the=Elna has in-vinegared   the=salad for   in five   minutes
               'Elna has put vinegar on the salad for/in five minutes'
        b. L'Elna   ha   en-sellat   el cavall en/#durant cinc   minuts
               the=Elna has   in-saddled the horse in/ for   five   minuts
               'Elna has saddled the horse in/for five minutes five minutes'

On the contrary, location verbs are telic irrespective of the embedded root ((3)a) and ((3)b).

    (3) a. En Jan   ha   em-botellat l'aigua   en/#durant cinc   minuts
               The Jan   has   in-bottled the=water in/for five minutes
               'Jan has bottled the water in/for five minutes'
        b. En Jan   ha en-vinagrat   els cogombres en/#durant cinc minuts
               the Jan   has in-vinegared   the cucumbers in/ for   five minutes
               'Jan has put the cucumbers into vinegar in/for five minutes'

The proposal states that although all locative verbs contain a prepositional head in their inner structure, the nature of the preposition varies in location and locatum verbs. While location verbs are construed on a bounded preposition, locatum verbs contain an unbounded preposition. In our account the notion of terminal/central coicindence relation does not yield (a)telicity. Instead, (a)telicity is better understood as linked to the notion of (un)boundedness, orthogonal to the central/terminal distinction.

The notion of (un)boundedness allows us to naturally derive the relation between (a)telicity and quantification, a relation which is clearly manifested in the behavior of locative verbs. We set off from Bosque & Masullo's (1999) observation that some verbs in Spanish may allow adverbial quantifiers to scope into the embedded nominal complement. The phenomenon is called *i(nherent)-quantification*, and is illustrated by examples such as those in (4).

(4) En Jan ha   sagnat   molt
    the Jan has   bled   a_lot
    'Jan has bled a lot'   (≈ "Jan has produced a lot of blood"; cf. *sang* 'blood')

Crucially, B&M point out that locatum verbs involving a mass entity, like *enmantecar* 'grease' (cf. manteca) are i-quantifiable ((5)a), while location verbs like *enjaular* aren't ((5) b).

(5) a. María   enmantecó demasiado el   molde.   (Spanish)
       María   greased   too_much the   mould
       'Marta greased the mould too much.'
    b. *Juan   enjauló   mucho   el   pájaro.
       Juan   encaged   a_lot   the   bird

We only partly concur with their position. Thus, while we accept that locatum verbs may not accept i-quantification if they embed a root construed as a bounded entity (see (7)), we reject B&M's contention that the non-i-quantifiability of a verb like *enjaular* 'cage' depends on the fact that it embeds a bounded root (cf. *jaula* 'cage'). Instead, we show that location verbs never allow i-quantification, irrespective of their embedding a bounded or an unbounded root (see (6)a and b). Thus, we claim that the bounded nature of the preposition in location verbs blocks i-quantification, while the unbounded nature of the preposition in locatum verbs is transparent for i-quantification and allows a quantifier like *massa* 'too much' to quantify the embedded root.

(6) a. #En Jan ha embotellat massa l'aigua
       'Jan has bottled the water too much'
    b. #En Jan ha envinagrat massa els cogombres   (*vinagre* = 'vinegar')
       'Jan has put the cucumbers too much into vinegar'
(7) a. #L'Elna ha ensellat massa el cavall
       'Elna has saddled the horse too much'
    b. L'Elna ha envinagrat massa els cogombres
       'Elna has provided the cucumbers with too much vinegar'

The pattern of i-quantification found in locative verbs has a striking parallel in the domain of quantification of PPs (Oltra-Massuet & Pérez Jiménez 2011). Thus, while Spanish preposition *con* 'with' does not allow degree quantification irrespectively of the (non-)gradability of its nominal complement (see (8)), preposition *sin* does, depending on the (non-)gradability of its nominal complement (see (8)b). The data show that bounded prepositions like *con* make their complement opaque to quantification.

(8) a. *Muy   *con*   luz/corbata vs. b.   Muy   *sin*   luz/*corbata
       very   with   light/tie vs.   very   without   light/*tie

In conclusion, we observe that location verbs are always both telic and non-i-quantifiable and locatum verbs can be atelic and i-quantifiable, on the one hand, or telic and non-i-quantifiable, on the other, depending on the conceptual properties of the embedded root. The data therefore show that the boundedness of the preposition ensures telicity, and that an unbounded preposition does not contribute to the aspectual and i-quantification properties of the event. The conclusion has the welcome side effect of supporting the view that telicity and quantification constitute one and the same transcategorial notion (see Borer 2005, among others).

Selected references: HALE, Kenneth & Samuel J. KEYSER. 2002. *Prolegomenon to a Theory of Argument Structure*. Cambridge, Massachusetts: MIT Press. HARLEY, Heidi. 2005. How do verbs get their names? Denominal verbs, Manner incorporation and the ontology of verb roots in English. In Nomi Erteschik-Shir & Tova Rapoport (eds.), *The Syntax of Aspect. Deriving Thematic and Aspectual Interpretation*, 42-64. Oxford: Oxford University Press. MATEU, Jaume. 2002. *Argument Structure. Relational Construal at the Syntax-Semantics Interface*. Bellaterra: Universitat Autònoma de Barcelona dissertation.