A syntax for atransitivity

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The goal of this work is threefold: 1. to put forth a new analysis of atransitivity (see (1) through (3)) in terms of a reprojection mechanism; 2. to extend the analysis to other predicates like the conative construction (see (9)) and activity VPs with patients (see (10)); 3. to show how this treatment of activity VPs accounts for their cross-linguistic variation.

0. McIntyre (2004) calls *atransitivity* the fact that a verb cannot link its usual internal argument when accompanied by certain particles or PPs. The next examples illustrate this phenomenon in three Germanic languages (examples from McIntyre 2004):

(1) a. I saw (*them) into the window. [Cf. *I saw them.*]
     b. I played (*the guitar) on/away/along/around. [Cf. *I played the guitar.*]

(2) Anne sah (*einen   Mann)   ins   Fenster.   [German]
     Anne saw a.ACC   man.ACC) in.the.ACC.N window.ACC
     'Anne saw into the window.' [Cf. *Anne sah einen Mann*.]

(3) (*Spekulaas) door-eten. [Cf. *Spekulaas eten.*]   [Dutch]
     gingerbread   through-eat
     'Eat on.'

Atransitive predicates show the following properties (based on McIntyre 2001, 2004, 2007): A) it is a case of productive variable argument realisation; B) the event is understood both as an activity and as a Figure of a spatial schema in which the PP/particle denotes the spatial relation + Ground (e.g., in (1a) the seeing is interpreted as somehow traversing a metaphorical path which leads into the window); C) the PP/particle seems to be truly in complementary distribution with objects: if an object is inserted it is obligatorily understood as a Figure of a caused motion event, sometimes yielding aberrant results (cf., e.g., *I saw them into the window* ≈ "I caused them to go into the window by seeing"); D) The subject of the construction is not an internal argument, and the construction is therefore not unaccusative: atransitive predicates systematically select the HAVE-auxiliary for the perfect tense in German and Dutch (cf., e.g., (2): *Anne hat/*ist ins Fenster gesehen*). To these I add: E) atransitive predicates are usually atelic. Telicity or, to be more precise, lack of homogeneity, is allowed (although not enforced) by the concurrence of both a bounded-Path PP and a verb understood also as a bounded event (these two ingredients are present only in (5a)):

(4) I saw into the window for/*in 3 seconds.

(5) a. I shot into the window in/for 3 seconds.
     b. I shot on for/*in 3 seconds.

F) the (non-)quantity properties of the subject do not have any impact on inner aspect (cf. 6), which constitutes an additional proof that it is truly an external argument (unlike in (7), an unaccusative predicate) (cf. Borer 2005, MacDonald 2008):

(6) {Three sea snakes/Marine wildlife} ate into the dead octopus for/*in an hour.

(7) a. Three sea snakes swam into the cave in/*for five minutes.
     b. Marine wildlife swam into the cave for/*in five minutes.

G) there are languages, like Romance or Modern Greek, which do not allow these predicates:

(8) *Els ratolins menjaren endins del   formatge.   [Catalan]
     the mice   ate   into   of=the cheese

H) the majority of atransitive predicates share with the conative construction (9) and predicates involving patients (i.e., non-measuring-out objects; cf. (10)) both the lack of telicity and the expression of the relation between an event and an entity (cf. Marantz 2005):

(9) Jane ate at the cake for/*in 5 minutes.

(10) Jane swept the floor for five minutes. [*in five minutes* is good on a non-patient reading.]

1. Only one syntactic account has been proposed for this phenomenon: McIntyre 2004 (cf. also Zeller (2001)'s lexicalist account). McIntyre (2004) puts forth a control-like structure:

(11) $[_{\text{INITP}}$ I $[_{\text{INIT'}}$ play-INIT_i $[_{\text{CHANGEP}}$ X_i $[_{\text{CHANGE'}}$ V^{GO} $[_{\text{PP}}$ on$]]]]$ [Analysis of (1b)]

The subject (*I*) is projected as the specifier of a causative eventive head, INIT. The lexical verb, being a left-member of a compound with INIT, cannot link its argument (cf. (*the guitar)). An eventive head of GO/BECOME semantics, CHANGE, structures the rest of the predicate. The PP/particle is the complement (*on*) and the specifier is a null element (X) coindexed with INIT, which is aimed at accounting for the interpretation that the event is the Figure of a metaphorical caused motion event. I propose to literally cling to the idea that the light event head (v) + verbal root ($\sqrt{\text{PLAY}}$) combination, beyond its interpretation as an activity, is actually the Figure for the spatial relation denoted by PP/particle (PLACEP); it must therefore be its *specifier*, which eliminates the need of the mysterious coindexed X element:

(12) $[_{\text{VOICEP}}$ I $[_{\text{VOICE'}}$ VOICE $[_{\text{vP/PLACEP}}$ $[_{\text{vP}}$ v $\sqrt{\text{PLAY}}]$ $[\text{PLACE}$ $\sqrt{\text{ON}}]]]$ [preliminar; cf. (14b)]

v+$\sqrt{\text{ROOT}}$ is thus claimed to be both a specifier and a head. This is reminiscent of Hornstein & Uriagereka's (1999, 2002) claim about binary quantifiers like *most*, as in *Most people love children*. They propose that in a sentence such as this one, I is originally the head of the sentence before reprojection makes Q the new head, IP being the new specifier. This accounts for the status of Q as a two-place predicate relating the scope (IP: external argument) and the restriction (NP: internal argument) (Larson 1991):

(13) a. quantifier raising, head = I: $[_{\text{IP}}$ $[_{\text{QP}}$ most people$]_i$ $[_{\text{I'}}$ I $[_{\text{VP}}$ t_i love children$]]]$
      b. reprojection, head = Q: $[_{\text{QP}}$ $[_{\text{Q'}}$ most people$]_i$ $[_{\text{IP}}$ I $[_{\text{VP}}$ t_i love children$]]]$

For atransitive predicates I propose that v+$\sqrt{\text{ROOT}}$ is the head of the construction before the preposition/particle is reprojected, the verbal phrase becoming its specifier, as desired:

(14) a. "PP raising", head = v+$\sqrt{\text{ROOT}}$: $[_{\text{vP}}$ $[_{\text{PLACEP}}$ PLACE $\sqrt{\text{ON}}]_i$ $[_{\text{v'}}$ $[_{\text{v}}$ v $\sqrt{\text{PLAY}}]$ $t_i]]$
      b. reprojection, head = P: $[_{\text{PLACEP}}$ $[_{\text{PLACE'}}$ PLACE $\sqrt{\text{ON}}]_i$ $[_{\text{vP}}$ $[_{\text{v}}$ v $\sqrt{\text{PLAY}}]$ $t_i]]$

Being a Figure, the v+$\sqrt{\text{ROOT}}$ is expected to be relevant in the calculation of the inner-aspectual properties of the predicate (cf. Harley (2005); cf. (7)), as shown to be the case in (4)/(5a). Moreover, a possible problem for McIntyre's (2004) analysis, namely that X could correspond to a cognate object coindexed with the eventive head, is avoided:

(15) He danced (*a merry dance) on.

2. The conative construction (see (9)) can be analysed as a case of atransitivity, in that it also relates an event and an entity (e.g., for (9), "Jane did eating at the cake"). This is precisely Marantz's (2005) semantic proposal for predicates involving a patient (see (10)). However, Marantz analyses patients as VP-adjuncts headed by a null preposition. Instead, I suggest that, in English and similar languages, patients, while headed by a null preposition, are *internal* to an atransitive VP. Passivisation of patients (cf. *The floor was swept for five minutes*) is thus no mystery.

3. As already proposed by McIntyre (2004), atransitive predicates involve *conflation* (Haugen 2009): the verbal root is bundled with the null v head. This bundling is not possible in many languages (Snyder 2001), which explains data like (8). Languages showing the pattern of (8) also lack anything similar to the conative construction. Moreover, there is evidence that patients in these languages are adjuncts. Thus, passives of activity verbs sound awkward if the activity interpretation is forced (cf. Bartra 2008 for Catalan, Mendikoetxea 1999 for Spanish):

(16) To   patoma   skupistike   se/??yia   pende   lepta.   [Modern Greek]
      the   floor   sweep.PST.PASS.3SG in/during   five   minutes

Greek/Romance-type languages cannot construe patients as (VP-internal) arguments since they do not have conflation available. The fully grammatical telic variant of (16) corresponds to a change-of-state predicate, the root expressing a result state, and not an activity.

Selected references: HORNSTEIN, Norbert & Juan URIAGEREKA. 1999. Labels and projections: A note on the syntax of quantifiers. *University of Maryland Working Papers in Linguistics* 8. 249-270. MARANTZ, Alec. 2005. *Objects Out of the Lexicon: Objects as Events.* Ms. Cambridge (Mass.): MIT. MCINTYRE, Andrew. 2004. Event paths, conflation, argument structure and VP shells. *Linguistics* 42(3). 523–571.