Instrument as internal subject:
evidence from the verbs *baad* 'cut', *maj* 'burn', and *pan* 'tie' in Thai (an in person talk or poster)

The instrument subject (e.g. *the axe* in *the axe broke the window*) is uniformly analyzed in literature as the external argument (as *effector* by Van Valin & Wilkins (1996), as *initiator* by Ramchand (2003), as *agent* or *causer* by Alexiadou & Schäfer (2006)). Thus, it is structurally the same as the agent subject. I show that it is not always the case. The instrument subject of some verbs in Thai is the internal subject (à la Hale & Keyser 1993), thus yielding an unaccusative-like syntactic structure, despite their transitive valency. Along with this unaccusative structure, I argue that the internal generation of the subject also predicts their instrumental interpretation, based on Pylkkänen's (2008) event syntax. See (12).
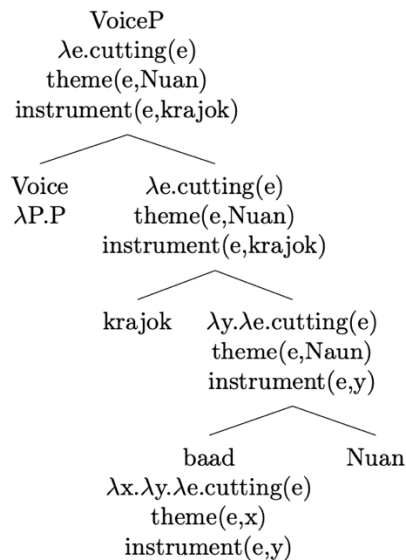
In Thai, there is a class of transitive verbs such as *baad* 'cut', *maj* 'burn' and *pan* 'tie' that take instrument-like subjects (1). The use of the agent subject with this verb class results in ungrammaticality (2). This verb class has an obligatory instrument entailment, hence *obligatory instrument verbs* (Koenig et al., 2008). The instrument participant is interpreted as such that it has a property related to the event denoted by the verb. For example, the verb *baad* 'cut' forces or limits its instrument argument to have sharp edges (1). This position aligns with Jerro's (2017) analysis that instruments are simply causers at some medial point in the causal chain and for obligatory instrument verbs, instruments are entailed from the verbs themselves.

I demonstrate that the instrument subject of this verb class is generated at spec VP, hence unaccusative-like syntactic structure. First, these verbs are clause-internally causativized by the morpheme *tham* (3), same as unaccusatives (4). On the other hand, unergatives (5) and agentive transitives (6) can only be productively causativized by the combination of a causative morpheme and a complementizer *tham-haj* (Harley, 2017). Second, the instrument argument of this verb class cannot be demoted in passives (7) while it is possible for the agent of the agentive verb (8). Given that the Thai passive morpheme *thuk* is syntactically the same English PASS operator (Schäfer, 2017), the local relationship between PASS and Voice only allows suppression of the external argument. Because the instrument subject of this verb class is not introduced by Voice, it cannot be suppressed by the presence of the passive morpheme. Third, these verbs can form an idiom (through pseudo noun-incorporation) with their instrument argument. See (9) and (10). According to Marantz's (2013) locality for contextual allosemy, verbs can only from idioms with internal arguments. Lastly, when modified by the adverb *ikkrang* 'again', this verb class only produces the repetitive reading (11). Given Pylkkänen's event syntax, there are two adjunction sites for 'again' modification, VoiceP and VP. For an agentive transitive predicate, the repetitive reading requires modification of the VoiceP, while it is VP for the restitutive reading. Since the highest argument of this verb class is the instrument internal subject at spec VP, both adjunction sites of 'again' modification yields the same repetitive reading where both the instrument and the theme scope under the 'again' operator.

My analysis of the instrument subject of the verbs such as *baad* 'cut', *maj* 'burn' and *pan* 'tie' in Thai as the internal subject does not only capture the obligatory instrument entailment, but also explains their syntactic properties similar to those of inchoatives. The argument structure proposed for the instrument internal subject is identical to ditransitives except that there is no external argument. The discovery of this verb class in Thai instead completes the typological picture of the syntax of the argument structure by filling the gap in the logical possibilities.

Examples

(1)   krajok baad Nuan.   (2)   *Somchai   baad Nuan (duey krajok).
         mirror cut   Nuan   Somchai   cut   Nuan with   mirror
         'Nuan got cut by the mirror.'   'Somchai cut Nuan (with mirror).'

(3)   Somchai tham krajok baad Nuan. (4)   Somchai tham kaew taek.
         Somchai CAUS mirror cut   Nuan   Somchai CAUS glass break
         'Somchai cut Nuan with the mirror.'   Somchai broke the glass.

(5)   Somchai thamhaj Nuan ten.   (6)   Somchai tamhaj Nuan taeng Jum.
         Somchai CAUS Nuan dance   Somchai CAUS   Nuan Stab Jum
         'Somchai made Nuan dance.'   'Somchai made Nuan stab Jum.'

(7)   Nuan thuk   *(krajok)   baad. (8)   Nuan thuk (Somchai)   taeng.
         Nuan PASS   mirror   cut   Nuan PASS Somchai   stab
         'Nuan got cut by the mirror.'   'Nuan got stabbed (by Somchai).'

(9)   faj   (kanad jaj)   maj baan.   (10)   baan faj(*kanad jaj)-maj.[1]
         Fire   size   big   burn house.   House fire-burnt
         'The big fire burnt the house.'   'The house burnt.'

(11)   Context: Naun got cut by the mirror earlier today.
         a. Repetitive reading   b. Restitutive reading
         Krajok baad Nuan ikkrang   #Mead baad Nuan ikkrang.
         mirror cut   Nuan again   Knife cut   Naun   again
         'Nuan got cut by the mirror again.   'Nuan got cut by the knife again.'.

(12)

Tree (12):

VoiceP
$\lambda e.cutting(e)$
theme(e,Nuan)
instrument(e,krajok)

Voice : $\lambda P.P$ | $\lambda e.cutting(e)$, theme(e,Nuan), instrument(e,krajok)

krajok | $\lambda y.\lambda e.cutting(e)$, theme(e,Naun), instrument(e,y)

baad : $\lambda x.\lambda y.\lambda e.cutting(e)$, theme(e,x), instrument(e,y)   Nuan

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[1] In (10) The subject of the verb *maj* 'burn' is compatible with the modifier *kanad jaj* 'big-sized'. When it is pseudo-incorporated into the verb, the modifier is prohibited, and the new verb is derived as *faj-maj* 'fire-burn' (11). Here, the theme argument *baan* 'house' is the sole target of the EPP-feature and moves to the subject position.

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