Licensing of argument structures by functional heads: evidence from English *have*

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This paper provides a unified syntactic account for the distribution of English *have* in causative (1a) and experiencer (1b) constructions. I argue that *have* is realized in the context of an applicative head (Appl) and an event introducer v, regardless of the type of v (2). In causative (2a), *have* is spelled out when Appl merges under v_{CAUSE}, and in experiencer (2b) when Appl merges under v_{BE}. v in these structures provides verbal support to Appl resulting in verbal *have*. It is also argued, through the discussion of the structure of double object construction, that Appl has to be in a local relation to v in order to be spelled out by *have*. The proposed account provides empirical evidence for expanding the distribution of Appl: (i) a causative can take ApplP as a complement (2a), which was absent in Pylkkänen's (2008) typological classification, and (ii) Appl can merge above Voice (2b), contrary to Pylkkänen where Appl is argued to always merge below VoiceP, never above. Moreover, (2) supports a theoretical claim that argument structure is licensed by functional syntactic structure (Borer 1994, 2005; Ritter and Rosen 1997); unlike those studies, however, (2) shows that the relevant functional heads are not aspectual heads, but Appl and v.

(1) a. John had Mary pick up a book.
b. John had Mary walk out of his classroom.

(2) a. [$_{VoiceP}$ causer (= agent) [$_{voice'}$ Voice [v_{CAUSEP} v_{CAUSE}[$_{ApplP}$ causee (= non-agent) [$_{Appl'}$ Appl [$_{VP}$]]]]]]
b. [$_{vBEP}$ v_{BE} [$_{ApplP}$ experiencer [$_{Appl'}$ Appl [$_{VoiceP}$ agent [$_{voice'}$ Voice [$_{VP}$]]]]]]

Ritter and Rosen (1997) argue that *have* in (1) is the realization of two functional heads, namely F1 and F2. In (1a), F1 assigns an originator role to the subject of *have*, and F2, whose specifier hosts the causee, measures out (i.e. delimits) the event. However, their approach cannot account for *have* in non-delimited causatives as in (3). With experiencer *have* (1b), on the other hand, they argue that there is neither originator role nor event measurer leaving the roles of F1 and F2 unexplained. It remains unclear, therefore, how F1 and F2 in (1b) is unified with (1a).

(3) John had Mary drive the car *in an hour/for an hour.

I argue that the two functional heads that unify (1a) and (1b) are v and Appl (2). Appl merges under v to be spelled out as *have*. I assume that Appl is event-related as it denotes a relation between a DP in its specifier and an event, which merges as its complement (Pylkkänen 2008): either VP (2a) or VoiceP (2b) can be a complement. A causer is licensed by Voice, which introduces an intentional agent and combines with v_{CAUSE}, which introduces a causing event to VP. Two event-related applicative diagnostics (Pylkkänen 2008) support an Appl complement of a causative (2a). Unergatives and a static verb like 'hold', which are compatible only with event related Appl, but not with entity related Appl, can appear in the complement of causatives (4a) and (4b).

(4) a. John had Mary cry. b. John had Mary hold the book.

The semantics of the causee, 'Mary' also corroborates the Appl analysis of causative (2a). In Pylkkänen's benefactive applicatives (e.g., *John ate a cake for Mary*), the non-agentive argument, benefactive (i.e., Mary), merges in the specifier of ApplP contrary to the agent, John, in the specifier of VoiceP. I argue that a causee, like a benefactive, is non-agentive, and thus is introduced by Appl (2a). That is, contrary to a causer, a causee is not a full-fledged agent, as its incompatibility with an agent-oriented adverb indicates (5).

(5) John had Mary pick up a book on purpose. (John's intention, not Mary intention).

In an experiencer construction (2b), on the other hand, the subject 'John' is introduced by Appl, but the embedded subject 'Mary' is introduced by Voice, as 'John' is non-agentive but 'Mary' is agentive (6). v_{BE} in (2b) accounts for the stative nature of experiencer constructions (1b) (Ritter and Rosen 1997; Harley 1998).

(6) John had Mary walk out of his classroom on purpose. (Mary's intention, not John's).

The data (5)-(6) cannot be captured by a proposal that each of the interpretations of (1a) and (1b) is inherited from the semantics of its complement (e.g., Harley 1998). In this view, for instance, (1b) has an experiencer interpretation as its complement lacks an agentive v. However, the complement to (1b) is fully agentive (6) projected by VoiceP (2b).

Morphological evidence from a Georgian malefactive construction (7) lends further support to the claim that *have* is the spell out of v and Appl in (2). Like in English (1b), a malefactive argument in (7) is introduced by an applicative morpheme, *a-*, that is prefixed to a non-causative event head *-i-*, v (which are together spelled out as *e*) (Nash 1994; McGinnis 1998).

(7) dedeb-s Nino da-e-č̣r-a-t
mothers-DAT Nino-NOM PREV-APPL+ V-cut-AOR-PL
'The mothers had Nino wounded on them.' (*a + i > e*)

A pattern of an applicative morpheme in Georgian also provides some insight into one of the roles of v in English *have*. According to Nash (1994), an applicative morpheme in Georgian needs a verbal base; for example, in a possessive construction, an applicative morpheme appears prefixed to a dummy verb stem, *-kv-* (8).

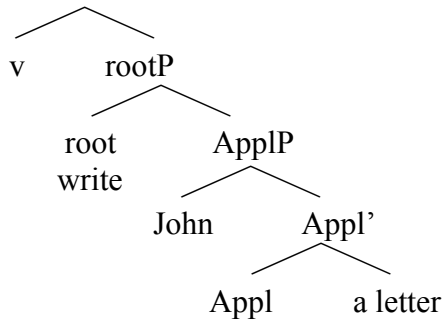
(8) bavšvs cigni a-kv-s
Child.DAT book.NOM APPL-stem-3SG
'The child has a book.' (Nash 1994)

I argue that like in Appl in Georgian, Appl in English experiencer *have* and causative *have* constructions needs verbal support, and v provides verbal support to Appl to yield a verbal *have.*

The structure for the double object construction in English proposed by Pylkkänen (2002) (9b) further refines the proposed v and Appl approach in (2).

(9) a. I wrote John a letter.

b.



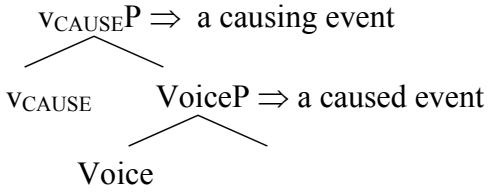
The prediction of the proposed account in this paper would be that *have* would appear if v and Appl were present. The double object construction (9b) involves v and Appl; however, it is *not* realized by *have*. I argue that this is due to the fact that the relation between v and Appl in (9b) is non-local, in contrast to the causative (2a) or experiencer structure (2b). That is, in (9b), a root intervenes between v and Appl, and v provides a verbal support for the root, not for Appl.

The current proposal that *have* is inserted into causative and experiencer constructions when v and Appl are present posits that (i) causatives in English take ApplP structure as complement, and (ii) event-related Appl can merge above Voice. Thus, it provides strong evidence for

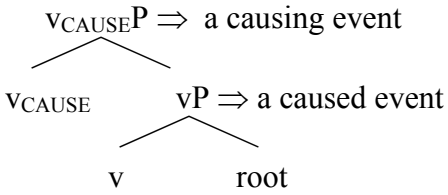
expanding the typology of the complement selection of causatives in Pylkkänen (2002, 2008): ApplP is a complement that causatives can select, in addition to VoiceP. Moreover, it relaxes the restrictions on a hierarchical relation between Voice and Appl: Appl needs not merge below Voice.

Pylkkänen (2002, 2008) proposes that the size of the complement of a causative head, v_{CAUSE} can vary: there are phase-selecting causatives that select a constituent that has an external argument (e.g., VoiceP) (10a), and there are verb-selecting causatives that select vP without an external argument (10b). v in verb-selecting causatives is a verbalizing head, and is unable to introduce an argument.

(10) a. *Phase selecting causative*



b. *Verb selecting causative*



Phase- and verb- selecting causatives are argued to be different with respect to how the following two properties correlate, (i) whether an agent-oriented adverb can modify a caused event, and (ii) whether v_{CAUSE} can embed a high applicative. More specifically, the complement of a phase-selecting causative (10a) can be modified by an agent-oriented adverb if it can embed ApplP in its complement, and vice versa. By contrast, the complement of a verb selecting causative (10b) cannot be modified by an agent-oriented adverb if it cannot embed ApplP in its complement, and vice versa. However, the complement of English *have* causative takes an ApplP complement as in (2a) without embedding VoiceP, although it cannot be modified by an agent-oriented adverb as shown in (5). That is, *have* causatives in English are not phase-selecting causatives; nevertheless, they can embed a high applicative, contrary to Pylkkänen's claim. English *have* causatives also do not belong to the class of verb-selecting causatives. Although the English causatives do not allow agent-oriented modification of a caused event (5) like a verb-selecting causative, v_{CAUSE} can embed high applicative as a complement (2a), unlike a verb-selecting causative. I argue that the complement of English causative *have* is neither phase- nor verb-selecting, but applicative-selecting. English causative *have* constitutes an empirical evidence for a new type of a complement selection, expanding the distribution of Appl to causatives.

Another consequence of the proposal is the expanding of the distribution of event-related Appl above Voice. Under the proposed account, English experiencer *have* constructions have the structure (2b) where Appl merges above VoiceP. The structure (2b) suggests that Pylkkänen's claim that event-related Appl must merge below Voice is too rigid. English provides evidence that an event-related applicative can merge above VoiceP. In fact, the semantics of event-related Appl as proposed in Pylkkänen predicts that the Appl should be able to take a complement denoting an event. It is not surprising that Appl in natural language can take VoiceP, which denotes an event.

In sum, this paper provides a unified account of English causative (1a) and experiencer (1b) *have*: *have* is a realization of v and Appl (2), which shares the intuition with the traditional view of *have* as *be* + P (Freeze 1992; Kayne 1993). An empirical consequence of (2) is the expansion of the distribution of Appl: (i) as a complement to causative, and (ii) as merging above Voice. (2) also captures the underspecification of the semantics of *have* (e.g., Cowper 1989; Belvin 1994). The particular interpretations of *have* are due to the workings of the structures where *have* appears. Notably, (2) supports the recent syntactic approach to argument structure licensing by functional structure (e.g., Borer 2005); however, under (2), v and Appl play a crucial role, rather than an aspectual head.

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