

INFLECTIONAL SHELLS AND THE SYNTAX OF CAUSATIVE *HAVE*

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1. Introduction

While much syntactic work acknowledges that embedded clauses can be of varying sizes — from small clauses to bare TPs to full CPs — it is generally assumed that embedding clauses themselves have a complete sequence of functional and lexical projections. Against this assumption, we argue for the possibility of *inflectional shells*: multiple layers of functional inflectional syntax above a single lexical core.

We argue that this form of multi-clausality is instantiated in the syntax of English causatives, in particular *have* causatives, and that an inflectional shells analysis yields empirical advantages over previous analyses in which causative verbs occupy a functional head in a monoclausal inflectional sequence.

- (1) a. The teacher had the students line up.
- b. The director had the lead exit stage right.

We first outline the structural puzzle presented by causative constructions, and then present our analysis of causatives in terms of inflectional shells. We go on to argue that this account captures not only the properties of *have* causatives but also their differences from *make* causatives. Finally, we extend the account to other non-possession uses of *have*; and conclude by suggesting some broader implications.

2. The puzzle of causative syntax

Previous work on *have* causatives has faced a basic puzzle that we refer to as the *size paradox*. On the one hand, *have* causatives appear to be small: Ritter and Rosen (1993, 1996) argue that *have* causatives contain one event, while *make* causatives contain two. They treat *have* as a “functor predicate” that takes a bare VP complement, giving a single clause containing both the cause and the effect. This is consistent with other work treating all causatives as complex predicates, in which the causative verb is a functional head within a monoclausal structure (Harley 1995; Pylkkänen 2008, among others).

On the other hand, *have* causatives are big. The complement of *have* can include aspectual morphology, as shown in (2b) and (3b).¹ Indeed, the same aspectual morphology can occur simultaneously both above and below causative *have*, as shown by (5), further undermining the idea that *have* causatives involve a single clause.

¹For some speakers, some of these examples are marginal. For others, they are perfectly acceptable in the right context.

- (2) a. The director is having the chorus sing in the first scene.
b. The director has the chorus **be singing** when the show starts.
- (3) a. The screenwriter has had four characters marry in the first scene.
b. The writer had the protagonist **have been married** three times.
- (4) The doctor had the patient **be examined** by a specialist in order to rule out another diagnosis.
- (5) In recent months, the director has **been having** the chorus **be singing** at the beginning of every show.

The complement of *have* can also contain an expletive subject, as in (6). Assuming that *there* is inserted in the specifier of a clause-level functional projection to satisfy something like an EPP requirement, (6) suggests that there must be functional structure in the complement of *have*:

- (6) The caterer had there be two chafing dishes on each food service table.

This type of evidence that the complement of causative *have* is large appears to conflict with the general evidence that causatives are monoclausal in some sense, and that *have* causatives in particular are monoeventive. The picture is further complicated by evidence that whatever the size of the complement of causative *have*, it is smaller than the complement of causative *make*. *Make* causatives, but not *have* causatives, allow independent temporal modification of both the causing event and the caused event, as shown in (7). In addition, *make* causatives can be passivized, while matrix passivization of *have* causatives is impossible. This suggests two things: first, that in a *make* causative, there is a fuller structure below *make* than appears below causative *have*; and second, that more inflectional structure appears above *make* than above causative *have*.

- (7) a. They made the team throw the game on Monday by threatening them on Sunday night.
b. *They had the team throw the game on Monday by threatening them on Sunday night.
- (8) a. We made the children clean up the playroom.
b. The children were made to clean up the playroom.
- (9) a. We had the children clean up the playroom.
b. *The children were had (to) clean up the playroom.

If temporal modifiers are related to the interpretation of the event argument of a clause, then the possibility of two distinct temporal modifiers shows that *make* causatives involve two distinct events.

Yet even full causatives of the type formed by *make* are not fully biclausal, as much literature on complex predicate formation has noted. In Romance languages, *make* causatives permit clitic-climbing (Kayne 1975; Aissen 1977; Burzio 1986; Davies and Rosen 1988; Gonzalez 1994). In English, causative *make* takes

a bare infinitive rather than a *to*-infinitive (at least when *make* is active), weak evidence that the complement of *make* may be less than a full TP.

The puzzle is thus not only that both *have* and *make* causatives are larger than one clause but smaller than two, but also that *make* causatives are nonetheless larger than their *have* causative counterparts.

3. Proposal: inflectional shells

What does it mean for a structure to be more than one clause but less than two? For descriptive convenience, we call this kind of structure *sesquiclausal*.

Several proposals exist in which an embedded clause is smaller than a full clause. For example, Wurmbrand (1998, Wurmbrand (2001) proposes that some infinitival complements are larger than others. The smaller ones, which she calls restructuring infinitives, consist only of a VP. Since they lack a *vP*, they do not project an external argument, and they cannot check accusative Case. Wurmbrand shows that they have various other monoclausal properties; in particular, they can appear in long passive constructions. Larger infinitives, by contrast, have more structure, including some inflectional categories. Of interest to us here is the fact that restructuring infinitives involve two lexical verbs, but only one inflectional superstructure. Complex predicates and serial verb constructions been analyzed along similar lines, as containing two VPs but only one IP complex (Baker 1989; Carrier and Randall 1992; Zhang 2001, among others).

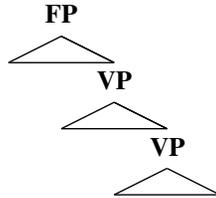
These structures all involve more than one clause, in the sense that they contain two lexical predicates. They are also less than two clauses, in that they contain only one IP complex.

How is this different from the situation we find with causative *have*? We have shown that *have* causatives must contain more than one layer of inflectional structure, given the possibility of double progressives or double perfects. However, the question remains whether they contain two lexical predicates. This raises the intriguing possibility that *have* causatives might instantiate a sesquiclausal structure with a single verbal core, but two layers of inflectional structure.

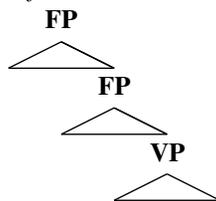
Indeed, the size paradox outlined in section 2 arises only if it is assumed that the presence of a clause-level functional head such as the progressive or the perfect implies the possible presence of all lower functional heads, as well as a lower lexical predicate. The presence of two aspectual heads in examples such as (5) has thus been taken to show that there must be two full clauses present.

Another possibility, however, is that there are two types of sesquiclausality. The familiar type exhibited by restructuring infinitives has a single functional layer sitting above two shells of verbal predication, as in (10a). We propose a second type, in which there are two inflectional shells above a single verbal predicate, as in (10b).

- (10) a. *Restructuring infinitives, complex predicates, etc.*

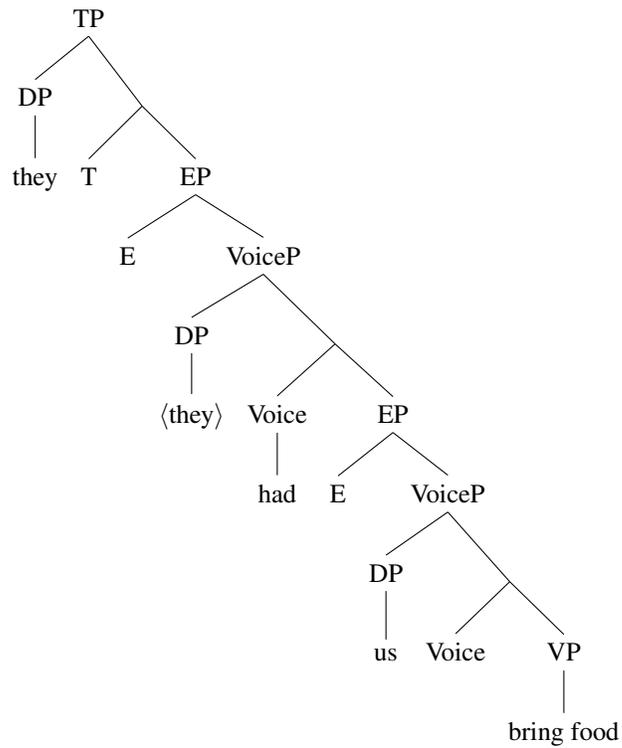


- b. *Inflectional Shells*



On this view, the structure of a *have* causative would be something like the following:

- (11) They had us bring food.



Have spells out a higher Voice head (following Kim (2011, 2012)), which

takes at least an EventP complement. This higher Voice head introduces the causer argument, while the lower Voice head introduces the causee.

Either or both Event heads in (11) may be imperfective, spelled out as progressive *-ing* (Cowper (1999, 2005)), as in (2) and (5), repeated here in (12).

- (12) a. The director **is having** the chorus sing in the first scene.
 b. The director has the chorus **be singing** when the show starts.
 c. In recent months, the director has **been having** the chorus **be singing** at the beginning of every show.

The complement of *have* may also include the perfect head, Perf, above EventP, giving examples such as (3b), repeated here as (13).

- (13) The writer had the protagonist **have been married** three times.

These data and their consequences for the syntactic structure of *have*-causatives does force a more complex analysis of their eventive structure than that proposed by Ritter and Rosen (1993, 1996). They argue that *have* causatives contain one (extended) event, while *make* causatives contain two:

- (14) a. *have*: 1 event
 [Causer + Agent + Predicate]
 b. *make*: 2 events
 [₁Causer + CAUSE] → [₂Agent + Predicate]

The evidence for this difference comes from several sources. First, as shown in (15), *make* causatives allow the caused and causing events to be independently temporally modified, while this is impossible in *have* causatives. This can be explained if *have* causatives involve only one grammatically represented event, which cannot have two disjoint times of occurrence.

- (15) a. On Tuesday, by giving everyone a huge dinner, the coach made the team lose on Wednesday.
 b. *On Tuesday, by bribing each and every player, the coach had the team lose on Wednesday.

Second, as shown in (16), *make* causatives allow the causing event to be independently negated, while this is again impossible for *have* causatives.

- (16) a. I didn't **make** Bill write the article, but he wrote it anyway.
 b. I didn't **have** Bill write the article, *but he wrote it anyway.

These facts pose a challenge for the structure we propose in (11), according to which *have* causatives do contain two events, with not only two Voice projections but also two Event projections. To reconcile this apparent conflict, we propose that *have* causatives describe a complex event, shown in (17), which contains the caused event as a subpart, but which also contains the surface subject of *have*.

(17) $[_1 \text{Agent-Causer} + [_2 \text{Agent-Causee} + \text{Predicate}]]$

If this is the correct event structure for *have* causatives, the structure for *make* causatives must be still more complex, as shown in (18). Here, there are three events: the causing event, the caused event, and a complex event containing the other two as subparts:

(18) $[_1 [_2 \text{Agent-Causer} + \text{CAUSE}] \longrightarrow [_3 \text{Agent-Causee} + \text{Predicate}]]$

The event-structural difference between *make* causatives and *have* causatives parallels the difference in morphological structure between affixation and compounding, shown in (19). In affixation, the affix without its host does not constitute a complete word. Analogously, in *have* causatives, the higher structure without the embedded event does not constitute a complete event. Just as affixes cannot be pronounced without also pronouncing their hosts, the higher event in a *have* causative cannot be temporally modified without also modifying the lower event.

(19) a. Affixation: 2 words: $[_{\text{word}} \text{un} [_{\text{word}} \text{cover}]]$
 b. Compounding: 3 words: $[_{\text{word}} [_{\text{word}} \text{dog}] [_{\text{word}} \text{house}]]$

So far we have proposed that English causatives, particularly *have* causatives, involve two shells of functional inflectional structure dominating a single lexical core. In the remaining sections of this paper, we demonstrate that this proposal sheds light on a number of otherwise-puzzling properties of *have* causative sentences.

4. The curious properties of *have* vs. *make*

We are now in a position to account for several observed differences between *have* and *make* causatives.

First, in the structure we have proposed for *have* causatives, the source of the causative interpretation is configurational, not lexical. Causative *have* does not spell out a lexical root, but an argument-introducing functional head, Voice. This Voice head, we propose, is the same head that introduces ordinary external arguments. It is spelled out as *have* only when it occurs above a lower VoiceP, adding a second, higher, Agent to a clause that both already denotes an event and already has an agent.

The source of the causative interpretation in *make* causatives, by contrast, arises from a lexical root, $\sqrt{\text{MAKE}}$, which introduces the independent causing event illustrated in (18). *make* thus contributes lexical, or more precisely radical, causative semantics. If *make* is radically causative, then it is not surprising that it can take as a complement any event or state of affairs that can be interpreted as caused. This accounts for the fact that *make* causatives allow a range of complements not available to *have* causatives. Compare the well-formed *make* causatives in (20) with their ill-formed counterparts in (21).

- (20) a. We made the children fall off the climbing structure. (unaccusative complement)
 b. We made the food last for three days. (non-sentient lower subject)
 c. We made the teacher angry. (stative complement)
- (21) a. *We had the children fall off the climbing structure. (with a non-agentive interpretation)
 b. *We had the food last for three days.
 c. *We had the teacher angry.

Second, notice that a causative *have* interpretation sometimes requires the coercion of an agentive reading where one would otherwise not be necessary, as shown in (22).

- (22) a. The children fell off the climbing structure. (unaccusative, no VoiceP)
 b. The children (deliberately) fell off the climbing structure in order to frighten the teacher. (Agentive, VoiceP present)
 c. The teacher had the children fall off the climbing structure. (Agentive reading only, lower VoiceP required)

This is explained on our account if causative *have* occurs only in structures containing two Voice projections above a single verbal core. The presence of causative *have* implies the projection of a lower (agentive) Voice head. This structural requirement on the insertion of causative *have* also accounts for the fact that the causee is always a volitional (and therefore necessarily sentient) participant in the event, as illustrated in (23). Again, *make* causatives are not constrained in this way.

- (23) a. The teacher had the children cover the food with plastic wrap.
 b. *The teacher had the plastic wrap cover the food.
 cf. The teacher made the plastic wrap cover the food (by stretching it to the limit).

Third, *have* causatives require that the causee be under the authority or control of the surface subject (the causer):

- (24) a. The CEO had the intern call the bank.
 b. # The intern had the CEO call the bank.

The fact that the causee agent must be interpreted as psychologically, socially, or organizationally under the control of the causer agent follows pragmatically from the structural relation between the two. The causer agent is agentive with respect to the entire event, including the causee agent. The presence of the causer agent therefore reduces the autonomy of the causee agent. The causee agent, however, is still an agent with respect to the inner event. This gives it the

thematic character of a “puppet” agent, rather than a patient or an instrument, in the sentence as a whole.

If Voice not only introduces an external argument but also introduces an event argument (as in early conceptions of *vP*), we should also expect causative *have* to appear with eventive passive complements (passive VoicePs), but not with stative passive complements (Adjectival passives). This prediction seems to be correct, as shown in (25) and (26). Notice that (26) is easily, and in fact most saliently, interpreted to mean that the director herself performed the work, not that she delegated it to a subordinate. This is in contrast to the interpretation of (25c), where the complement of *have* is eventive; here the director must have delegated the performance of the work.

- (25) Causative, eventive passive complement:
- a. The director had the suitcases taken to the airport by her assistant.
 - b. The director had the rest of the work done by her assistant.
 - c. The director had the rest of the work done with a chainsaw.
- (26) Resultative, stative passive complement:
The director had the rest of the work done by noon.

To sum up, the view that *have* causatives (but not *make* causatives) arise from an iterated VoiceP structure is able to account for several of their otherwise-curious properties, as well as for observed differences between these two types of English causatives. However, not all constructions in which *have* takes a clausal complement are causative. In the next section we compare causative *have* with several other embedding constructions headed by *have*.

5. The many faces of *have*

There are at least two constructions that look superficially like causative *have*, but are structurally and semantically quite different. The first is *experiencer have*, where the subject of *have* is affected (often adversely) by the event described by the bracketed material.

- (27) a. The manager had [six assistants quit last month].
b. Six assistants quit last month.
- (28) a. The new employee had [several colleagues compliment her work in the first week].
b. Several colleagues complimented the new employee’s work in the first week.

Following Kim (2011, 2012), we assume that the matrix subject in (27) and (28) is merged in the specifier of a peripheral Applicative projection, above Voice but below Event. The subject is interpreted as negatively or positively affected by the event, and the agency of the lower subject in each (a) sentence is unreduced; it is the same as in the simpler structure in (b). This is a monoclausal rather than

sesquiclausal structure, since no additional inflectional shells are present. In this case it is the peripheral Appl head that is spelled out by *have*.

The second, briefly mentioned above, is *resultative have*, as in (29):

- (29) a. We had the bicycle assembled (and ready to go) before lunch.
b. They had the kitchen clean by the time the guests arrived.

The origin of this construction in Old English was a resultative perfect construction (see Cowper and Hall 2013), which took either auxiliary *be* or auxiliary *have* depending on the transitivity of the main verb:

- (30) a. *Hie wæron cumen Leoniðan to fultume*
they were come to-Leonidas as help
'They had come to Leonidas to help him.'
b. *þa þa ge hiene gebundenne hæfdon*
then when you him bound had
'then when you {had bound him / had him in the state of being bound}'
(Alfred's translation of Orosius, ca. 893, quoted in Traugott 1992)

The transitive version of this construction survives in present-day English as the resultative *have* seen in (29). Such clauses in contemporary English are stative at all levels. The lower predication is an adjectival passive, as in (29a), or even a simple adjectival predication, as in (29b). The upper predication is also stative, as can be seen from the fact that it appears in the simple present without a habitual or reportive interpretation. This is shown in (31), in contrast to (32), which is distinctly odd without a context facilitating a habitual or reportive reading.

- (31) The helpers have all the vegetables chopped; what should they do next?
(32) The baby has a tantrum.

We assume that these resultative constructions consist of a lower ResultP (Ramchand 2008; Borer 2005), which is the complement of an argument-introducing *v* spelled out by *have*.

In all these uses of *have*, the interpretation of the role played by this external argument is pragmatically determined, as argued for a variety of other *have* constructions by Cowper (1989), and by Bjorkman and Cowper (2013) for modal *have to*. It is thus possible to construct minimal triplets, as in (33):

- (33) a. *Causative*: I had my car spraypainted by experts. (*have* in Voice, lower passive VoiceP)
b. *Experiencer*: I had my car spraypainted by vandals. (*have* in Appl, between Event and Voice)
c. *Result*: I had my car spraypainted by lunchtime. (*have* in *v*, with ResultP complement)

6. Conclusion

We have proposed in this paper that there are (at least) two ways sentences can be sesquiclausal. In addition to the well-studied case of two VPs below a single inflectional domain (as in restructuring infinitives and complex predicates), we have argued for the possibility of a single lexical layer beneath an iterated inflectional structure.

We demonstrated that the so-called causative *have* construction instantiates this kind of inflectional shell structure, spelling out the higher of two agentive Voice heads. This structure accounted for the special properties of *have* causatives, explaining how they differ both from other English causative constructions and from other, non-causative, constructions with *have*. More broadly, we proposed that *have* can spell out a variety of argument-introducing heads, including not only Voice, but also peripheral Appl and *v*. See also Cowper (2010), who argues that *have* spells out a T head taking a second TP as its complement. While the insertion of the same vocabulary item, *have*, in such a wide range of environments may obscure significant structural differences among those environments, what unifies them is the absence of any lexical root corresponding to *have*. The meaning *have* appears to express in each case is not inherent to *have* itself, but rather depends on which head it spells out, and on the interpretation of its arguments.

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