

Logophors, variable binding and the interpretation of *have*.*

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Abstract

The unavailability of the experiencer reading of English *have* when its subject is coindexed with a logophor in the complement is shown to be the result of a particular licensing condition on the experiencer and locative readings of *have*. The experiencer or location subject of *have* must bind a [+R] variable in its complement. Logophors, while variables, are not [+R] in the binding theory as presented in Reinhart and Reuland (1993); hence the experiencer or location reading is not licensed. More broadly, the result supports the proposals of Ritter and Rosen (to appear) and Belvin (1993, 1996) that *have* is a predicate whose interpretation depends upon the nature of and relations between its arguments.

1 Introduction

There are many interpretations for the verb *have* in English besides the simple possessive. In addition, *have* can be used as a locative, causative, or to signal the occurrence of an event which adversely affects its subject, usually termed the “experiencer” interpretation. In this short paper I present a surprising piece of evidence that confirms the thesis of Belvin 1993 and Ritter and Rosen (to appear) that these different interpretations are determined by the arguments of *have* rather than by the predicate itself, and I provide a more satisfactory account of the licensing of two of the interpretations of *have* than presented in those works. Crucially, I argue, experiencer and locative *have* must bind a [+R] variable (in the terms of Reinhart and Reuland 1993) in their complement; a [-R] variable cannot license these readings, and neither can a simple coreference relation with a [+R] pronominal. This account provides support for Reinhart and Reuland's characterization of pronouns as [+R] and also for their treatment of non-argument SELF anaphors as logophors. In addition, it forms part of an increasingly large body of work which demonstrates that the licensing of "thematic roles" can (perhaps must) be a structural phenomenon.

Five of the different uses of main verb *have* are illustrated below in (1). (1a) is an alienable possessive, (1b) an inalienable possessive, (1c) a locative, (1d) a causative, and in (1e) an experiencer reading is salient. We will be most concerned with (1c) and (1e):

- | | | | |
|-----|----|---|--------------------|
| (1) | a. | Getafix had a golden sickle. | alienable |
| | b. | The oak tree has many branches. | inalienable |
| | c. | The oak tree _i had a nest in it _i . | locative |
| | d. | Asterix had Obelix deliver a menhir to Getafix. | causative |
| | e. | Asterix _i had Obelix drop a menhir on him _i . | experiencer |

In (1a) Getafix possesses the sickle and can retain it or dispose of it as he chooses. In (1b), the tree's branches are an integral part of the tree and the tree has no

control over whether or not it "possesses" them. In (1c) there is no "possession" relation between the subject and object of *have*, rather, the subject is the location of the object. In (1d), the subject is an agent which induces or commands the object to perform the action expressed in the complement, and in (1e) the subject is adversely affected by the event or action in the complement — it is an experiencer.

2 Experiencer readings as locatives

Belvin 1993 and Ritter and Rosen both note a striking parallel between the experiencer and locative uses of *have*. In both cases, the presence of a coindexed pronoun in the complement to *have* serves to force the location or experiencer interpretation on the subject of *have*. For instance, in the locative case, without the coindexed pronoun *in it* in the complement, (1b) is ungrammatical:

(2) *The oak tree had a nest.

Oak trees do not satisfy the animacy requirement on alienable possessors, nor is a nest an integral part of an oak tree, thus, a possessive reading (alienable or inalienable) of (2) is unavailable. The locative reading cannot arise without the pronoun in a locative PP coindexed with the subject which forces the location interpretation on the subject, so (2) is ungrammatical, having no licensed interpretation. It is the coreference with an element in the complement that permits a locative interpretation of *have*.

Note that the locative PP does not have to be of a specific form; any locational PP will serve, so long as that PP contains a pronoun coindexed with the subject somewhere within it ('near it', 'on its branch', 'on the limb beneath the scar on its bark' are all possible PPs licensing the locative use of *have*)¹. A locative interpretation is possible with both animate and inanimate subjects, of course ("Calvin had a bee on him" means that Calvin was the location of the bee, not that Calvin owned a bee).

Similarly, the availability of the experiencer interpretation is much improved if there is a pronoun coindexed with the subject somewhere in the complement to *have*. Without the coindexed pronoun *on him* in the complement, it suddenly becomes

very difficult to get an experiencer reading for (1e); only a causative reading is readily available:

- (3) Asterix had Obelix drop a menhir. (*Experiencer reading)

Belvin 1993 and Ritter and Rosen concur in suggesting that the experiencer reading is in some sense parallel to the locative reading — that is, that it serves to *locate* the experience of an event on an experiencer, in the same way that the locative reading serves to locate an item on a location, and that a similar relationship between the subject of *have* and the complement is necessary in both cases. Just as the "location" interpretation for the subject of *have* is impossible without coreference with an embedded pronoun, the "experiencer" interpretation for the subject of *have* is impossible without coreference with an embedded pronoun. The verb *have* itself, then, is not responsible for the thematic status of its subject argument.

3 Binding and the experiencer interpretation

Despite the intuitive appeal of this approach, the exact nature of the relationship between the subject of experiencer *have* and the pronoun in its complement remains somewhat hazy. In general, the occurrence of a coindexed pronoun in a so called "ethical dative" PP (*on X*) is sufficient to license the experiencer interpretation, where the subject is adversely affected by the event in the complement²:

- (4) a. Asterix_i had Obelix eat the last boar on him_i.
 b. Getafix_i had Asterix alert the Romans on him_i

However, unlike locative *have*, where the coindexed pronoun must appear in some sort of locative PP, the coindexed pronoun in an experiencer use of *have* can appear anywhere in the complement. In (5), examples of coindexation with a pronoun in a spec-NP position, in an argument position, and in a spec-NP in an adjunct are given:

- (5) a. Luke_i had a stormtrooper blow up his_i X-wing fighter.
 b. Han_i had Leia kick him_i.(on the shin)
 c. Yoda_i had Luke make a mess in his_i hut.

Not only can the coindexed pronoun occur freely anywhere in the clausal complement, but given a strong enough context, the pronoun can be omitted entirely. In (6) are examples where the experiencer reading is available despite the absence of any coindexed pronoun in the complement:

- (6) a. Poor Mr. Chips. He had students walk out of class today.
 b. Do you think we'll have that loudmouth Rush drop in tonight?

Examples like those in (6) lead Belvin 1993 to assert that the experiencer reading is licensed by a semantic or pragmatic notion of relatedness or coreference between the subject and the complement of *have*, rather than a purely syntactic binding relation; the absence of any overt pronoun and the importance of contextual information in the establishment of the experiencer reading in (6) seem to him to be clear indicators of pragmatic/semantic constraints at work, rather than purely syntactic ones.

On the other hand, Ritter and Rosen argue that there must be a syntactic binding relation present between the subject of *have* and its complement, and posit null pronouns, possibly in a null "ethical dative" PP, in examples like those in (6). In order for (6a) to be felicitous, it must be understood that it is *Mr. Chip's* class that the students have walked out of; similarly, in (6b), it must be understood that Rush is going to drop in *on us*, not anybody else. Ritter and Rosen would posit a null possessive pronoun in the former, and a null PP in the latter.

The parallel with the locative cases continues to be revealing here. The locative pronoun can be omitted in the complement of locative *have* if it is replaced by an NP inalienably possessed of the subject:

7. The oak tree had a nest on a twisted branch.

Vergnaud and Zubizarreta 1992 argue extensively that inalienably possessed NPs are generated with a null possessor argument position within them, controlled by the possessor. If that is the case, the locative reading in (7) is licensed in exactly the same

way as any other locative reading, via the (syntactically represented) presence of a coindexed pronoun in the complement.

However, one could adopt the position that it is merely "understood" in both the locative and the experiencer subject cases in (6) and (7) above, where there is no overt coindexed pronoun, that there is some notional or semantic connection between the subject and the complement, without actually positing a syntactic representation of that relation. That is, as long as the necessary relationship of identity between some element in the complement and the subject is made clear by the context or other pragmatic factors, the experiencer or locative reading is licensed, although the relation need not be represented in the syntax. Below, I present evidence showing that this approach cannot be correct: the relationship between the subject and the complement of experiencer and locative *have* must be syntactically represented, and it must be of a particular type.

4 SELF pronominals and the interpretation of *have*

Interesting light is shed on the issue of the nature of the relation between the experiencer subject and the coindexed pronoun in the complement by a surprising fact about the possible interpretations of *have* when a SELF pronominal is the coindexed element in the complement. There is a surprising asymmetry between complements with a regular pronoun serving as the coindexed element and complements with a SELF pronominal. The former (8a) admit both a causative and experiencer reading, as expected, but in the latter (8b) only the causative³ reading is possible — the experiencer reading is suddenly unavailable⁴:

- (8) a. Asterix_i had goat's milk spilled on him_i.
 b. Asterix_i had goat's milk spilled on himself_i ***Experiencer reading**

The lack of the experiencer interpretation in (8b) is extremely surprising, given that the context is such that the experiencer reading would pragmatically be the most appropriate. Despite the fact that it is difficult to imagine a situation where

Asterix would deliberately cause someone else to spill goat's milk on him, that is the only available interpretation of (8b).

Why should this be? If the looser, "understood" semantic relation characterization of the subject-complement relation on the experiencer (and locative) reading, and only a semantic/pragmatic notion of coreference were necessary to license the experiencer interpretation of *have*, the fact in (8b) receives no explanation, as presumably the coreference between *Asterix* and *himself* is at least as salient as the coreference between *Mr. Chips* and a notional possessive pronoun in the NP *class* in (6a).

On the other hand, if a specifically syntactic notion of binding is what is required to license the experiencer reading, as Ritter and Rosen maintain, it suffices to argue that that particular binding relation doesn't exist between the subject and the SELF pronominal in (8b), and hence no experiencer reading is licensed. There is some evidence that it is reasonable to assert a significant difference between that relationship and the one between a regular pronoun coindexed with an experiencer subject.

5 The logophoric status of the SELF pronominal

Given that the complement to *have* in (8b) is headed by a passive participle, it might be unclear whether or not the relationship between the SELF pronominal and its antecedent is local enough to permit standard anaphoric binding or not — that is, whether or not the SELF pronominal is bound in its governing category in, say, the sense of Chomsky (1981). However, if we adopt the binding theory proposed in Reinhart and Reuland (1993), it becomes clear that the SELF pronominal in this case is not an anaphor. Consider the ungrammaticality of the sentences in (9):

- (9) a) ??/*Bill had a negative spin put on himself (by the media).
 b) ??/*Bill had an honorary degree given to himself (by the president).
 c) *Bill had a small girl give himself flowers.
 d) *Bill had Hilary insult himself in public

Reinhart and Reuland (1993) argue that a property of logophoric SELF pronominals is that they are infelicitous in argument position (since in argument position they would reflexive-mark their non-reflexive predicates and hence produce a violation of R&R's Condition B). In (9), the SELF pronominals are in argument position, reflexive-marking unreflexive predicates and producing ungrammatical structures. In the grammatical (8b), however, the SELF anaphor is in a PP without a subject and hence whose P is not a possible predicate. In (8b), then, no reflexive-marking takes place and the logophoric SELF-pronominal violates no binding condition; hence, (8b) is grammatical while the examples in (9) are degraded.

Confirmation of this hypothesis comes from the data in (10) below. In conjoined NPs, Reinhart and Reuland point out, SELF anaphors become grammatical in argument position (since they are no longer in a position to reflexive-mark their predicates). If this is true, then, a conjoined NP with a SELF-anaphor should make the examples in (9) become grammatical, as indeed it does. (Note that throughout the experiencer interpretation is ungrammatical (this is especially noticeable in (10c), where as in (8b) the context is such that an experiencer interpretation should be preferred).

10. a) Bill had an honorary degree given to Al and himself.
 b) Bill had a small girl give Al and himself flowers.
 c) Bill had Hilary insult Al and himself in public

Reinhart and Reuland also claim that the observed unusual properties of SELF anaphors in so-called "picture NPs" result from the fact that these SELF anaphors are simply logophors; one would expect, then, a picture-NP containing a SELF anaphor to be grammatical in argument position in the complement to causative *have*, which indeed it is:

11. Bill had a small girl insult/beg for/demand a picture of himself.

Note that, again, an experiencer reading is still infelicitous⁵. These facts are particularly striking in that logophors have the (perhaps defining) property that they

seek to corefer with a salient "perspective" in the discourse, either the speaker or hearer or some third person whose point of view has been reported; elements bearing the theta-role "experiencer" are particularly felicitous in this regard (subjects of predicates like "believe", "feel", "think", "know" etc.) If the experiencer role on the subject of experiencer *have* were independently licensed by the *have* predicate, it would be extremely surprising to discover that the subject of experiencer *have* is not eligible to antecede a logophor.

What we have concluded from this section, then, is that a SELF anaphor embedded in the complement to *have* must be logophoric⁶, and the only reading which is available for such *have* constructions, surprisingly, is causative. Why should this be?

6 Syntactic binding by the experiencer subject

If the SELF pronominal in (8b) (and (10) and (11)) is a logophor, rather than an anaphor, a plausible explanation for the lack of an experiencer interpretation of these examples immediately suggests itself. Whatever the relationship between a logophor and its antecedent is, it is not the relation which is necessary to establish the subject-complement link that licenses the experiencer interpretation.

Some consequences immediately fall out of this account of the non-availability of the experiencer reading. The first, and most important for the purposes of this paper, is that the notion of pragmatic/semantic or "understood" coreference between subject and complement cannot suffice to license the experiencer reading, since nothing could be more "understood" than the coreference relation between a logophor and its antecedent, yet this does not suffice to license the reading. The relationship between the experiencer subject and the complement pronoun must be specific and syntactic. Hence, in examples like (6) above without an overt pronoun, Ritter and Rosen are right to posit a syntactically present null pronoun.

Let us then consider what other characterization is possible of the relationship between the coindexed pronoun (null or overt) and the subject of experiencer *have*.

One possible avenue of attack involves the distinction between binding of a variable and simple coreference, which has long been appealed to in the literature as an explanation for (among other things) the strict and sloppy readings in ellipsis and other constructions, illustrated in (12) below:

12. Asterix wanted Obelix to catch a boar for him, and so did Getafix.

In (12), Getafix could either want Obelix to catch a boar for him, Getafix (sloppy), or Getafix could want Obelix to catch a boar for Asterix (strict). The sloppy interpretation is the one where the pronoun is acting like a variable bound by the matrix subject, with a simple representation of the elided VP something like that in (13):

13. x [Obelix catch a boar for x]

On the strict interpretation, on the other hand, Asterix is merely coindexed with the pronominal, fixing its interpretation for the discourse, and the elided material will include the pronominal with the Asterix-indicating indexation.

This is relevant to the current discussion in that the licensing coreferent pronominal in an experiencer *have* construction must always be a bound variable — elision environments only admit of sloppy, not strict, interpretations. The same sentence on a causative interpretation, however, allows both sloppy and strict interpretations:

14. Asterix had Obelix knock on his door, and so did Getafix.

Experiencer interpretation: Getafix had the experience of Obelix knocking on Getafix's door (sloppy), not the experience of Obelix knocking on Asterix's door (strict).

Causative interpretation: Obelix could knock on both Asterix's and Getafix's doors (sloppy), or on Asterix's door twice, once at the behest of Asterix and once at the behest of Getafix (strict).

One could perhaps argue that it is simply very difficult to imagine that Getafix could have the experience of Obelix knocking on Asterix's door, but even in a situation where imagining Getafix's being adversely affected by an event is not difficult, the strict interpretation of the pronoun is not possible:

- (15) (imagine that Getafix has been in Asterix's hut with Obelix sometime today).
Asterix had Obelix fart in his hut today, and so did Getafix.

The elided VP cannot mean "Getafix experienced Obelix farting in Asterix's hut".

The judgements become quite subtle at this point. However, if the ethical dative "on him" is added to the VP, it seems that the strict reading for the possessive "his" is suddenly possible, as the experiencer reading is licensed by binding the variable in the "on him" PP, and "his" need no longer be a variable to license the experiencer reading:

- (16) Asterix had Obelix fart in his hut on him today, and so did Getafix.
(Interpreted as: Getafix had Obelix fart in Asterix's hut on him).
x[Obelix farted in Asterix's hut on x]

From this we may conclude that the subject of experiencer *have* must bind a variable in the complement in order to license the experiencer interpretation, and that one such binding relation suffices.

How is this different from the situation with SELF logophors in the complement? As noted by Reinhart and Reuland (1993:673), logophors can (but need not be) bound variables; indeed, many theorists have claimed that they must be bound variables. Logophors (indeed, all SELF anaphors) have another defining characteristic which distinguishes them from pronouns, however; they are not referential, or in Reinhart and Reuland's notation, they are [-R]. On the other hand, pronouns in that system are [+R]. This distinction gives us all the necessary tools to define the situation in which the experiencer *have* interpretation is licensed:

17. *Condition on Experiencer 'have'*

The subject of experiencer *have* must bind a [+R] variable in its complement.
If the condition in (17) is not met, the experiencer reading is not licensed.

Presumably the same is true of locative *have*, given the parallel alluded to above. This seems to be the case: (18) cannot mean that Calvin possesses the bee which is on Hobbes (the strict interpretation); rather, only the sloppy interpretation is available:

18. Hobbes has a bee on him, and so does Calvin.

Similarly, introducing "only" into the sentence does not introduce an ambiguity in experiencer (18c) or locative (not possessive) (18b), while it does in (18a); only the bound interpretations are available:

19. a) Only Hobbes thought that Susie liked him.
 (of all x, only Hobbes thought that Susie liked Hobbes. (strict))
 (of all x, only Hobbes thought that Susie liked SELF. (sloppy))
- b) Only Hobbes had a bee on him.
 (of all x, only Hobbes had a bee on SELF (sloppy))
 *(of all x, only Hobbes had a bee on Hobbes (strict))
- c) Only Hobbes had a bee sting his neck.
 (of all x, only Hobbes had a bee sting SELF's neck (sloppy))
 *(of all x, only Hobbes had a bee sting Hobbe's neck (strict))

Finally, it is debatable whether or not the locative preposition in a locative use of *have* is an argument or not. Under the analysis here, however, it seems desirable to treat it as a non-argument, and a SELF anaphor in the locative PP as a logophor. This would explain the judgements in (20a-b), assuming that the condition on experiencer *have* outlined above also holds of locative *have*:

20. a) Calvin had a bee on himself. ***locative, causative ok**
- b) *The oak tree had a nest on itself ***locative**

No appropriate binding relation exists to license the locative reading if the SELF anaphor is a logophor in (a) and (b); hence the locative reading is not licensed here. The causative reading is licensed in (20a) because Calvin is an appropriate animate subject who could position a bee where he likes; no reading is licensed in (20b) because the oak tree is inanimate and can only be a location, not a causer.

6 Conclusion

I have made two main claims in the above discussion. The first is that the interpretation of *have* and the theta-roles of its arguments are determined by the

relationship between its subject and complement on the locative and experiencer readings, as argued in Belvin 1993 and Ritter and Rosen (to appear). The second is that this relationship is crucially a particular syntactic one, rather than a semantic/pragmatic one. For these readings, this determining relation is necessarily one of binding of a [+R] variable. When the complement to experiencer *have* contains not a bound variable pronoun but a logophor, the experiencer reading is unavailable, because logophors are [-R]; similarly, when the complement to experiencer *have* contains a pronoun which does not behave as a bound variable the experiencer interpretation is unavailable.

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¹In fact, I assume elsewhere (Harley, to appear) that the locative and inalienable possession readings are instances of the same interpretation of *have*. Inalienably possessed things typically stand in a part-whole relation to the possessor, and Vergnaud and Zubizarreta (1992) argue that inalienably possessed NPs are generated with a null possessor argument position within them controlled by the inalienable possessor. I contend that this coindexation of the null argument in inalienably possessed NPs serves the same purpose as the coindexed pronoun in the locative argument, licensing the non-animate subject in a relation with the complement. In a sense then, the inalienable possession construction is really more like a locative construction than an alienable possessive, not being a true "possessive" at all.

²Belvin (1996) pursues an analysis where experiencer *have* has structure in common with the English existential, based on a judgement that objects in experiencer constructions must be indefinite. I and the several English speakers with whom I have conferred do not share this judgement (as abundant examples throughout demonstrate), and as will become clear below, no such constraint falls out of the analysis of these constructions proposed below.

³Recall that no restrictions on the availability of the causative reading have been proposed: as long as the subject is an appropriate causer, and the embedded event an appropriate thing which the subject can cause, the causative interpretation is available. For detailed discussion of what is 'appropriate' see Belvin (1996), Harley (to appear). Note further that it will be tricky to construct examples like those that can be constructed for the locative reading in (2), where the subject can be an appropriate location but not an appropriate possessor and hence the crucial role played by the coindexed pronoun can be graphically demonstrated. Any subject that can be an appropriate experiencer will also be an appropriate causer and constructing examples like (2) is hence impossible: *some* reading will always be available; the crucial thing to notice is that sometimes the experiencer reading is unavailable.

⁴Thanks to Andrew Carnie for noticing these facts. I have since verified this peculiar distinction with at least 20 native English speakers, both linguists and non-linguists. The judgement is surprisingly robust, given the notorious variability in judgements involving such anaphors in English.

⁵Although its infelicity seems less clear in (11) than in (8b) and (10) above, for which I offer no explanation.

⁶Unless it is the object of *have*, the subject of the embedded event, when it will form part of *have*'s syntactic predicate and be anaphorically bound by the subject of *have* (Asterix had himself fetch the golden sickle); only the causative reading is available for these sentences as well, which it should be clear also follows from the account proposed here.

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