

What makes a perfect perfect(ive)? Recoverability and the semantics of HAVE

Although a vast amount of literature is devoted to the properties of the periphrastic perfect, the intricate characteristics of its compositional semantics largely remain mysterious. It is uncontroversial that the auxiliaries make up for the non-finiteness of their past participial complements by virtue of overtly expressing tense information that originates in T. What is far from clear, though, is whether the auxiliaries additionally provide relevant perfect information or are semantically vacuous. The present paper will provide an argument for the former view with respect to HAVE. As a matter of fact, evidence from three cross-linguistic phenomena will be presented in order to show that relevant perfect information are not only stored in past participial forms but may also be found on HAVE (cf. Iatridou et al. 2001: 220f.). Subsequently, an approach to the compositional semantics of the periphrastic perfect will be laid out.

The aforementioned phenomena involve the divergent realization of past participles and come in two kinds: they are either based on impoverishment or comprise the realization of ornamental morphology (see Embick & Noyer 2007: 305ff.). Examples of the former kind may be found in (1) and (2), whereas an example of the latter kind is provided in (4) further below.

- (1) a. *I don't know how he found out that she belonged to that lass, but find out he has.*
b. *It will never be known how Jarman was caught, but *catch/caught he was.*
- (2) a. *dass er das Buch hat lesen müssen* (German)
that he the book has read.INF must
'that he had to read the book'
- b. *dass das Buch *lesen/ gelesen werden muss* (German)
that the book read.INF/read.PTCP become must
'that the book has to be read'
- c. *dass das Mädchen *ankommen/ angekommen sein muss* (German)
that the girl arrive.INF/ arrive.PTCP be must
'that the girl must have arrived'

In the case of the so-called Perfect(ive) Participle Paradox (PPP) in (1), we find a plain (infinitival) form instead of a properly inflected past participle in contexts of VP-preposing (cf. Breul 2014). The Infinitivus pro Participio (IPP) in (2) also includes a plain form, but differs in that the intricate syntactic properties of a complex verb cluster featuring the participial prefix *ge-* serve as a trigger. While their triggers are manifold, PPP and IPP both show that semantic recoverability is a necessary condition for the application of impoverishment, which does not have an effect on LF, but its recoverability. Crucially, impoverishment is never licit with the passive auxiliaries BE and WERDEN and only exceptionally found with the perfect auxiliary BE (if the verbal semantics are lexically supplemented by a sense of completion, i.e. in the case of verbs of motion and position, e.g. in Dutch: *Hij is naar huis moeten gaan/blijven staan*). In other words, it is only regularly possible in the context of a HAVE-perfect. This indicates that BE and WERDEN, unlike HAVE, do not allow for the recovery of the associated passive or perfect semantics without a properly inflected participle. We may thus assume that passive information as well as perfect information in the case of unaccusative predicates is stored entirely in the participle, whereas substantial perfect semantics are contributed by the perfect auxiliary HAVE.

Additional evidence for relevant perfect semantics on HAVE comes from the data in (3).

- (3) *dass Rust den Mörder sehen ??können/ gekonnt hat* (German)
that Rust the murderer see could.INF/ could.PTCP has
'that Rust could have seen the murderer'

This example shows that the IPP may trigger a peculiar word order effect in German, where IPP-configurations deviate from the usual OV pattern in standard varieties. While external factors may cross-linguistically prevent this, HAVE is occasionally bound to be preposed, which may well be semantically motivated (cf. Barentzen 2004: 137f.) in the sense that it is the only

element in the clause that may signal a perfect interpretation (cf. preposing of future-*werden*).

Another case in point is provided in (4) (cf. den Dikken & Hoekstra 1997: 1058).

- (4) *hy soe it dien/ dwaan wollen ha* (Frisian)
he would it do.PTCP/ do.INF want.PTCP have
'He would have liked to do it.'

The presence of an ornamental piece of past participial morphology in the case of the so-called Participium pro Infinitivo (PPI) interpretively remains without any effect, i.e. the superfluously marked form is not interpreted as being terminated. This underlines the claim that the past participle does not necessarily induce perfectivity all by itself if it is accompanied by HAVE.

While these observations provide clear evidence for perfect semantics on HAVE, the question remains of how exactly the compositional interpretation of the periphrastic perfect is derived. The present proposal is based on the assumption that – unlike in aspectual languages like Latin or Russian – perfectivity in Germanic (and Romance) is 'defective'. This entails that the past participle includes aspectual properties that may only impose perfectivity on a verbal situation in case its event structure allows for it. This may be made explicit on the basis of (5) and (6).

- (5) a. *Die Kirche hat gebrannt.* b. *Lena ist verschwunden.* (German)
the church has burned Lena is disappeared

- (6) a. *The church has burned.* b. *Lena has disappeared.*

Intransitive telic events like the one in (5b) only comprise a simple change of state and may hence be brought to an end by the aspectual features of the past participle, i.e. the Time of the Situation (TSit) is terminated. This implicates that TSit precedes Topic Time (TT) (see Klein 1994 for TSit and TT). Atelic predicates like (5a) differ in that they may not be terminated by defective perfectivity, since they are semantically homogeneous (cf. Lübke & Rapp 2011: 271) and the same holds for transitives (comprising a homogeneous causative phase). Given that this results in imperfectivity, a proper perfect interpretation cannot come about without independent help. This is where HAVE comes in by virtue of providing posteriority, i.e. expressing that TSit precedes TT (or TT is in the posttime of TSit). Crucially, this implies but does not enforce that the verbal situation is properly ended, which is exactly what we find in a universal perfect reading (as made explicit via adverbial modification, e.g. *seit gestern/since yesterday* in (5a) and (6a)). Accordingly, the proper realization of one of the compositional ingredients of perfect semantics, i.e. either perfectivity or posteriority, suffices to derive the other via implication.

This leaves the question of what happens in HAVE-only languages like English, where both unaccusatives as well as unergatives and transitives form their periphrastic perfects with the help of HAVE. With the latter types of verbs, the situation is analogous to (5a), but the unaccusative in (6b) might raise problems. However, these dissolve in that nothing prevents both ingredients from being realized in the absence of a licit alternative (BE being reserved for passive periphrases). This is unproblematic as the two ingredients are not in complementary distribution: they do not have the same denotation (completion of TSit vs. posteriority of TT) and may both be spelled out in the combination of an unaccusative past participle and HAVE.

This analysis does not only provide a novel approach to the semantics of the perfect. Rather, it also breaks new ground in the discussion of the identity of perfect(ive) and passive participles in that it accounts for how a single past participial form may denote imperfective as well as perfective situations in passive and perfect periphrases, respectively. While unaccusatives are bound to be perfective, transitives and unergatives may not reliably be brought to an end by defective perfectivity. Hence, the latter two appear in imperfective passive as well as in perfect constructions, where they may only gain a perfect interpretation with the help of HAVE.

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