Readings of the German Present Perfect^{*}

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Abstract

The goal of this paper is to give a monosemous analysis of the meaning of the German present perfect in terms of an Extended Now approach (McCoard (1978). I propose an account for the different present perfect readings in terms of the discourse-based approach to tense first developed by Kamp & Rohrer (1985). Temporal and rhetorical relations between tenses in a given text will be used to account for the different readings of the present perfect.

1 Introduction

In German, the present perfect can often substitute for the preterit (cf. (1) and (2)). Both tenses denote an event time (E) that is before (S). Contrary to the English present perfect, both the German preterit and the present perfect can be combined with adverbials such as *gestern* (yesterday).

- (1) Sigurd ist gestern angekommen und gleich wieder abgefahren. Sigurd has yesterday in Tübingen arrived and at-once again left.
- (2) Sigurd kam gestern an und fuhr gleich wieder ab. Sigurd arrived yesterday and left particle at-once again verb-particle.

If a present perfect can be replaced by a preterit without a significant change in meaning, it has a preterit reading. If the preterit cannot replace a present perfect, this present perfect has a perfective reading (the term perfective is used in opposition to preterit. It does not refer to aspect). With the exception of Musan (2002), no systematic distinction between the two readings of the perfect has been proposed so far.

The goal of this paper is to give a monosemous analysis of the meaning of the German present perfect in terms of an Extended Now theory (McCoard (1978). I propose a systematic account for the different present perfect readings in terms of Kamp & Reyle (1993)'s discourse-based approach to tense. Temporal and rhetorical relations between tenses in a given text will be used to account for the different readings of the present perfect.

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The chapter is organised as follows. In section 2, I argue for a monosemous approach to the German present perfect in terms of an ExtendedNow approach. Section 3 offers a discourse based account to the different perfect readings. Section 4 concludes.

2 The meaning of the German present perfect

It is highly debated whether the German present perfect has a single uniform meaning that covers its various uses or if it is ambiguous between (3) and (4) (see for discussion Ehrich (1992), Thieroff (1992) ...). (3) is a perfective present perfect. The first present perfect in (4) can replace the preterit.

- Jetzt, wo Sigurd angekommen ist, feiern wir.
 Now where Sigurd arrived has celebrate we
 "Now that Sigurd has arrived, we'll celebrate."
- (4) Sigurd ist gestern in Tübingen angekommen und gleich wieder abgereist. Sigurd has yesterday in Tübingen arrived and at-once again left

Many analyses propose a uniform semantics of the German present perfect covering (3) and (4). This is confirmed by (5) and (6) where there is a difference between the present perfect and the preterit. In (5), the embedded preterit can either have an anterior reading or a simultaneous reading. In the former, eight o'clock passed already, in the latter it is eight o'clock when Fred thinks so. The present perfect in (6) only allows for the first reading. This is somehow unexpected from a polysemous approach. If the present perfect had two independent meanings (a preterit and a perfective one), one could not explain why it cannot always substitute for the preterit (or one has to stipulate why substitution is not always possible). I therefore assume a single uniform meaning of the German present perfect.

(5)	Fritz dachte, dass es 8 Uhr war	Stechow (1999:98)
	Fritz thought that it 8 o'clock was	(cf. also Latzel (1977:141))
(6)	Fritz dachte, dass es 8 Uhr gewesen ist	Stechow (1999:98)
	Fritz thought that it 8 o'clock been is	

For reasons I present elsewhere (cf. Rothstein (to appear, in preparation)), I assume an ExtendedNow approach to explain the present perfect. The ExtendedNow-interval (XN) is a time span whose right boundary (RB) ends in the case of the present perfect at the moment of speech (S) (McCoard (1978)). The position of its left boundary (LB) is not specified or can be given by adverbials like *since*. The event time (E) denoted by the present perfect is within XN. I call McCoard's (1978) XN *the traditional ExtendedNow*.

(7) "Traditional" ExtendedNow (XN) (McCoard (1978):



b: Present perfect:

S R E XN	
R = S	
XN (LB, RB)	
RB = S	
$E \subseteq XN$	

"S" is an indexical discourse referent.

To account for the futurate use of the present perfect as in (8), the traditional XN must be modified to (9). The ExtendedNow does not end at (S), but at (R). (R) is Reichenbach's (1947) reference time point relative to which the event time (E) is evaluated. The most intuitive reading (8) has is that the conference has not already ended, but that it will have ended by tomorrow. This new time interval is called the *perfect time span* (=PTS) (cf. Iatridou et al (2001)).

- Morgen hat die Konferenz bereits aufgehört.
 Tomorrow has the conference already ended "The conference will have ended by tomorrow."
- (9) Modified XN:



As Pancheva & Stechow (2004) note there is a contrast between German and English (see (10)).

- (10) a Ich habe hier immer gewohnt ... bis vor kurzem.
 - b. I have here always lived ... until recently.

The adverbial *always* suggests that the eventuality the present perfect denotes holds throughout the entire PTS (Iatridou et al (2001) for English). To capture uses of the present perfect as in (10), Pancheva & Stechow (2004) allow the PTS to be completely separated from (R) in languages like German. The right boundary of PTS can reach up to the reference time (R) of the auxiliary. I give a somewhat simplified meaning in (11).

(11) Pancheva & Stechow (2004): XN



According to Pancheva & Stechow (2004), PTS is defined as a time span with vague boundaries that contains (E). (E) is somewhere in PTS, its exact position is unknown. To account for temporal succession of (E)s in present perfect sentences as in (12), something must be said about the temporal position of each (E). If one assumes a vague PTS containing an unfixed (E), it is not possible to prevent the PTSs of different present perfects from overlapping. If the PTS overlap, nothing can be said about the temporal order of the different (E)s. For instance, if PTS₁ and PTS₂ overlap and if they are defined as containing a vague (E), (E₂) can actually precede (E₁). It is therefore desirable to restrict the PTS interval.

(12) Sigurd ist heute morgen in Tübingen angekommen (E₁) und gleich in Sigurd is today morning in Tübingen arrived and at-once in die Unibibliothek gegangen (E₂). Am Nachmittag hat er dann *the Uni(versity)-library gone. In-the afternoon has he then* Freunde getroffen (E₃). *friends met.*"Sigurd arrived this morging in Tübingen. He went to the university lib

"Sigurd arrived this morning in Tübingen. He went to the university library. In the afternoon, he met some friends."

A simple solution is to assume a dynamic PTS which is identical to (E) and only distinct from (E) if context requires it. More precisely, certain adverbials such as *seit* (since) or perfective uses of the present perfect require RB of PTS to be later than the final subinterval of (E). This solution has the advantage that it easily allows for analyses of temporal succession. The meaning I assign to the German present perfect is the following:

(13) My XN: (for German)



b: Present perfect: $\begin{array}{c|c}
S & R & E & PTS \\
\hline
R & \neg < S \\
PTS (LB, RB) \\
RB < \mid R \\
E \subseteq PTS
\end{array}$

To conclude, the perfect introduces a time interval in which the event time is located. This interval is called the *perfect time span* (PTS). In German, PTS is dynamic. By default, RB is the final subinterval of (E). RB is only distinct from (E) if context requires it.

After having discussed the meaning of the present perfect, we now turn back to the question how to account for the perfective and preterit readings of the perfect.

3 The preterit and perfective readings of the German present perfect

How can the two readings be distinguished systematically? At a first glance, it could be thought that event time modification by certain positional adverbials like *yesterday* triggers automatically a preterit reading. This is however not the case. For instance, the embedded present perfect in (14) has a perfective reading although it is modified by *gestern* (Carla has moved to the apartment and as a consequence, a key for the toilet is needed).

 (14) Jetzt, wo Carla gestern hier eingezogen ist, brauchen wir einen Schlüssel fürs Now when Carla yesterday here in-moved has, need we a key for-the Klo. Löbner (2002:383)) bathroom.

Hence, a perfective reading of the present perfect is fully possible within the context of a past time adverbial and the distinction between the perfect readings must rely on a broader context.

To distinguish the present perfect readings, Musan (2002) proposes pragmatic principles, but she almost exclusively analyses isolated sentences. Her principles can easily be overridden by context. To account for the perfect readings in German, a discourse based approach becomes necessary.

Various interpretations of tenses in texts have been proposed in the last twenty years (among others by Hinrichs (1986), Partee (1984) and Kamp & Rohrer (1985) or Kamp & Reyle (1993)). Partee (1984) and Hinrichs (1986) propose that events introduce a "reference time point" in time that serves as a default anchoring time point for the event of the next sentence. States do not introduce such "reference time points", but they take over the reference point from their local context. This explains the often observed fact that narrative progression states retard the story while events put the story forward. The simplicity of these approaches is very attractive, but there are some problems (cf. Kamp et al (2004) for further discussion):

(15) Max fell. John pushed him.

(16) John turned off the light. The room was pitch dark.

In (15) the pushing must have occurred before Max fell. In (16), the darkness is the result of switching off the light and cannot already have obtained before turning of the light. On Partee's and HINRICH's account, the falling would have preceded the pushing, since the reference time of the falling serves as anchoring point for the event in the next sentence and the predicted reading of (16) would be that the dark room could not be the result of the turning off. Therefore, these analyses fail.

Hans Kamp discovered that a simple Reichenbachian approach to the pluperfect cannot account for its uses in *extended flashbacks* as in (17) (cf. Kamp & Rohrer (1985)). The pluperfect denotes an event time (E) before a reference time (R) that is before (S) (for reasons of simplicity, I abstract from the *perfect time span*). For instance, in (17), the preterit sentence serves as a reference time point for the preceding event time(s) in the pluperfect. The sequence starts with a past tense that serves as (R) for the pluperfects. The events (e_2) to (e_6) are temporally ordered. Fred first gets up, then takes a shower and so on. In order to be able to give the right temporal order of the events (e_2) to (e_6) one cannot (as for instance Hinrichs (1986)) refer to (R), since (R) for the five instances of the pluperfect in (17) is always the same: it is e_1 , the event of Fred arriving.

(17) Fred arrived at 10 (e_1). He had got up at 5 (e_2); he had taken a long shower (e_3), had got dressed (e_4) and had eaten a leisurely breakfast (e_5). He had left the house at 6:30 (e_6). Kamp & Reyle (1993:594)

Kamp argues that Reichenbach's reference time must be split up in what he calls a *reference time point* (Rtp) and a *temporal perspective point* (Tpt). Tpt corresponds to what Reichenbach called reference time, it is the intrinsic unchangeable reference time of a tense relative to which (E) is located. To avoid terminological confusion, I keep Reichenbach's term (R) for what Kamp and co-authors call Tpt.

Kamp et al (2004:71) state the following: "The antecedent discourse gives an Rtp in relation with which the following tense form establishes an anaphoric relation" To avoid terminological confusion with (R), I call Kamp's (Rtp) (D)*iscourse time point*.

(18) Reference time (R):

(R) is a point in time relative to which (E) is located.

(19) Discourse time point ((D)):
 (D) is a point in time set by an antecedent discourse in relation with which the following event time establishes an anaphoric relation.

If one takes the notion of (D) to be given, the analysis of (17) becomes easy. $(D)_2$ precedes $(D)_3$ which precedes $(D)_4$ and so on.

The setting of (D) does not explain by itself why (D)₂ precedes (D)₃ and so on. The temporal anaphoric relations in a coherent discourse depend first on the temporal meaning of the involved tenses and second on rhetorical relations between the eventualities. For instance, if α is an explanation for β , α must precede β (see Lascarides & Asher (1993)). As far as I can see, (D) is fully compatible with their assumptions. In the following, (D) will be used as a tool to distinguish the different present perfect readings.

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The basic framework within which discourse relations between sentences are analysed is DRT as elaborated by Kamp & van Genabith & Reyle (2004). The following example is an illustration:

(20) Peter betrat die Bar. Er bestellte einen Whisky *Peter entered the bar. He ordered a whisky.*

(21)



In (20) and in its DRT representation (21), we find the discourse referents for the times (S, t_1,t_2). S stands for the moment of speech (see Kamp, van Genabith & Reyle (2004:75) for a more detailed discussion on S), t_1 and t_2 are variables for time points. We then find the eventualities (e_1, e_2) . The meaning of the two clauses are given in the two boxes, the temporal relation between these two is given in the little box in brackets and consists of a presupposition that must be resolved in order to fix the temporal relation between the eventualities (e_1) and (e_2) . The resolution of the presupposition consists of finding specifications for (D) and p. p is the temporal relation between the event time of an eventuality from the context and the (D) of the eventuality to which the presupposition belongs. (D) has to be linked by an anaphoric presupposition resolution to the event time of an element from the context. For the first sentence there is no discourse context. I ignore here default rules for out of the blue sentences. The temporal relation for (e_1) and (e_2) is the relation of succession, so (e_1) must precede (e_2) . (D) must therefore be resolved to t_1 and p is a prior to relation. As (D) is resolved to t_1 and p is specified as <, we can now incorporate the presupposition into the representation of the second sentence. (22) is the final representation for (20).

(22)

$S p t_1 x t_2 e_1 e_2$		
Peter (p)		
$t_1 < S$		
$e_1 \subseteq t_1$		
e ₁ : "betrat die Bar"		
(p)		
$t_1 < t_2$		
er (x)		
einen Whisky (w)		
$\mathbf{x} = \mathbf{p}$		
$t_2 < S$		
$e_2 \subseteq t_2$		
e ₂ : "bestellte" (x,w)		

Kamp defines (D) as always referring to an event time in discourse, but I think, it can also refer to other points in time. It is plausible to assume that in some cases it is rather the result of an eventuality that serves as a (D) for a following tense than the eventuality

itself. In (23), (D) clearly does not refer to the result of having lost the glasses, since the glasses were found again, while in (24), the glasses are still lost and it is therefore more plausible to assume that (D) refers to the result of having lost them.

- (23) Ich habe meine Brille verloren und heute morgen erst wieder gefunden. *I have my glasses lost and today morning particle again found.*
- (24) Ich habe meine Brille verloren. Ich finde sie einfach nicht. *I have my glasses lost. I find them simply not.*

It is clear that in (24), I am looking for my glasses because I have lost them, but also because they are not there. Hence, in (24) it is not the event of losing the glasses that is put into a discourse relation to the following event, but the fact that they are still not in sight. In other words, the (D) to which *looking for them* refers to is not the event but the result of the event.

However, (D) can not be set freely. First, (D) can not precede (E). The event time of *Hochzeit stattfinden* can not take a (D) that is prior to the moment in time when Albin asks for Sandrine's hand.

(25) Albin hat um Sandrines Hand angehalten. Die Hochzeit fand in Lyon statt. *Albin has for Sandrine's hand asked. The wedding took in Lyon place.*

Second, (D) cannot be later than (R). In (26), for instance, our party is simultaneous to (R) of the present perfect and it is not possible to take an (D) that is later than (R).

(26) Jetzt, wo Albin zurückgekommen ist, feiern wir. *Now where Albin arrived has celebrate we* "Now that Albin has arrived, we'll celebrate

The emerging generalisation is given in (27).

(27) **First restriction for (D) in the present perfect** (D) can either be resolved to (E) or (R).

There is an interesting correlation between PTS and (D). As argued in section 2, both LB and RB are vague in German, but it is possible to identify RB by discourse. (D) and RB interact. The possible combinations are shown in (28) and (29), where ";" separates the presuppositional part from the semantical part. (28) is the representation of (25) and (29) of (26).



b: $R \neg \leq S \& PTS (LB,RB) \& (RB \leq | R) \& (E \subseteq PTS); (D) = R$

There is an interesting consequence for the inclusion relation between PTS and (E). If (D) is later than (E), PTS and (E) are not identical. If (D) is resolved to (E), PTS and (E) are identical.

(30) Correlation between (D) and RB

(D) is always identical to RB. If (D) is later than (E), (E) and PTS are not identical.

The various combinations of (D), PTS, (E) and (R) will now be used to account for the different present perfect readings. The claims for the preterit and perfective readings are as follows:

- (31) If (D) is resolved to (E), PTS is identical to (E) and the present perfect has a preterit reading.
- (32) If (D) is resolved to a point in time within PTS that is later than (E), PTS is not identical to (E) and the present perfect has a perfective reading.

Let me start by looking at the temporal relation a preterit establishes with a following preterit. (33) is such an example. Its DRT is given in (34). The meaning of (35) is given in the two big boxes, the presupposition is in the little box in brackets. This presupposition must be resolved. The temporal ordering of (33) is easy to see: Albin must first ask for Sandrine's hand before there can marry, if not there will be no wedding (under circumstances that I consider as being normal). So (e₁) clearly precedes (e₂). The presupposition is therefore resolved by saying that (e₂) takes (e₁) as (D) and that *p* is a prior relation. The final structure is (35).

(33) Albin hielt um Sandrines Hand an. Die Hochzeit fand in Lyon statt. *Albin asked for Sandrine's hand. The wedding took in Lyon place.*

(34)



Let us now have a look at a sequence with a present perfect that is followed by a preterit. (36) is the present perfect version of (33). The temporal reasoning and the presupposition resolution are the same as for (33), so I do not describe them here. As a final DRT we get (35). As one can see, (D) is resolved to the event time denoted by the present perfect *hat gehalten*.

(36) Albin hat um Sandrines Hand angehalten. Die Hochzeit fand in Lyon statt. *Albin has for Sandrine's hand asked. The wedding took in Lyon place.*

(37)

$$\begin{array}{c|c} t \ j \ S \ R_1 \ E_1 \ PTS \ e_1 \\ \hline \\ Albin (a) \\ Sandrine (s) \\ R_1 \neg < S \\ PTS (LB,RB) \\ E_1 \subseteq PTS \\ RB < | \ R_1 \\ e_1 \subseteq E_1 \\ e_1 : "um Hand anhalten" (a,s) \\ \end{array} \right) \left(\left\{ \begin{array}{c} (D) \\ p \ ((D),E_2) \\ p \ ((D),E_2) \\ p \ ((D),E_2) \\ \end{array} \right\} , \begin{array}{c} h \ S \ R_2 \ E_2 \ e_2 \\ \\ "Hochzeit" (h) \\ R_2 < S \\ E_2 = R_2 \\ e_2 \subseteq E_2 \\ e_2 : "stattfinden in Lyon" (h) \\ \end{array} \right) \right) \\ \end{array} \right)$$

(38)

a s h S R₁ E₁ PTS R₂ E₂ e₁ e₂ Albin (a) Sandrine (s) PTS (LB,RB) R₁ $\neg < S$ E₁ \subseteq PTS RB $< | R_1$ e₁ $\subseteq E_1$ e₁: "um Hand anhalten" (a,s) E₁ $< E_2$ "Hochzeit" (h) R₂ < SE₂ $= R_2$ e₂ $\subseteq E_2$ e₂: "stattfinden in Lyon" (h)

The same analysis holds for sequences where a present perfect is followed by a present perfect. The preterit reading of the present perfect can therefore be identified by saying that the event time of the present perfect must serve as a (D) for another past event time.

(39) Second restriction for (D) in the present perfect

If the event time₁ for a present perfect₁ serves as (D) for an event time₂ that is before (S), the present perfect₁ has a preterit reading.

Let's have a look at the so-called perfective use of the present perfect in (40). Albin is still there and a party will be given to honour him. The preterit in (41) is not possible, since it does not say anything about whether Albin is still there.

- (40) Albin ist gestern zurückgekommen. Deshalb feiern wir nun. Albin has yesterday returned. That's-why celebrate we now.
- (41) ^{??}Albin kam gestern zurück. Deshalb feiern wir nun Albin returned yesterday verb-particle. That's-why celebrate we now.

The most intuitive interpretation of (40) is that the (D) of the present perfect is simultaneous to the time of utterance. If it was simultaneous to the event of Albin arriving there, the present perfect would get a preterit like interpretation as shown for (33) or (36) and under this reading (40) should not be possible.

Let us now think about why (41) is less acceptable. It is obvious that this must be due to the temporal specification *jetzt*, *wo*. It asks for a relative clause that is coreferential in time with the *jetzt* denoted by the tense of the matrix verb. In (41) the matrix tense is the present tense and we therefore need an embedded tense form that allows this coreferientiality. As the preterit locates a time t before (S), this is not possible.

But how can one know whether (E) or the final subinterval of PTS of a present perfect serves as (D) for a tense that is not prior to (S)? With (40), we are facing the problem how tense shifts within a text are motivated. Whenever a shift from the present perfect to the present tense or vice versa occurs, we theoretically have two possibilities to set

(D) of the present perfect. It can either be resolved to (E) or (R). (42) is an example where (e_1) does not follow from (e_2) . One does not get better because one was sick at some time in the past. So, (D) is not resolved to a point in time later than (E_1) , but to (E_2) itself.

(42) Heute geht es Albin richtig gut, aber neulich ist es ihm richtig schlecht ergangen

The choice between these two options cannot be explained by looking at temporal relations between tenses. It has to be motivated by a rhetorical cause-effect relation between the involved eventualities. An example is (40). As already mentioned, the arriving of Albin (E_1) is the reason to party (E_2). The only available reading is that he will participate at the party since he is still there. The version in the preterit is marked if not impossible (see (41)). It is therefore plausible to assume that RB of PTS allows for a rhetorical relation with (E_2) that does not automatically follow from (E_1). It follows that (D) must be located at the final subinterval of PTS that is in case of (40) the moment of speech. (40) has therefore a perfective reading.

Contrary to the first two generalisations on present perfect readings, the emerging third principle consists therefore of two parts. Like the second one (see (39)) it is defined relative to a following event time, but it additionally requires a rhetorical relation between the present perfect and the following tense. This is not the case in the second generalisation where only the temporal relation the present perfect enters with a following tense is considered.

(43) Third restriction for (**D**) in the present perfect

If there is no event time₁ before (S) that takes the event time₂ of a present perfect as a (D) and if the final subinterval of PTS of the present perfect allows for a cause effect relation with the event time₁, (D) is located at (S).

An analysis is now given for (44). As there is no (E) before (S) that takes the (E) of the present perfect as (D), there are two options for the resolution of (D). It can either be (E) or (R). Given that the reason to party is the ongoing presence of Albin, (R) allows for a cause effect relation with the following present tense.

(44)

(45)

a x S R ₁ E ₁ PTS R ₂ E ₂ e ₁	e_2
	-
Albin (a)	
$R_1 \neg \leq S$	
PTS (LB,RB)	
$E_1 \subseteq PTS$	
$RB < R_1 $	
$e_1 \subseteq E$	
e ₁ : "ankommen" (t)	
$E_1 < E_2$	
"wir" (x)	
$R_2 = S$	
$E_2 = R_2$	
$e_2 \subseteq E_2$	
e ₂ : "feiern" (x)	

To sum up, a discourse based approach to tense is proposed. The present perfect has a preterit reading when (D) is simultaneous to the event time denoted by the present perfect, and a perfective reading when (D) is located at (R). The preterit reading arises when the (D) serves as an evaluation time for another event time located before the time of utterance. In other cases, the present perfect has a perfective reading. Furthermore, (D) serves to identify the boundaries of the PTS-interval. Whenever (D) is not simultaneous to the event time, RB is identical with the point in time (D) is resolved to.

Finally, some remarks on the binding patterns of the present perfect. The contrast between (5) and (6), repeated as (46) and (47), is resolved if the present perfect is analysed as a compositional tense consisting of a present tense and a past participle. The present perfect denotes an event time prior to the present tense. A bound present tense is evaluated in relation to the reference time of the binding verb (see (48)). Hence, it follows that the present perfect must express a time prior to the time of the matrix verb (see (47)) and that it therefore can only replace the preterit in a "prior-to-matrix verb" relation. I argue that (D) is not sensitive to binding, since a transformation from direct to indirect speech does not change the temporal order of the reported events (cf. Rothstein (in prep.) for further discussion of the binding patterns of the present perfect).

- (46) Fritz dachte, dass es 8 Uhr war Stechow (1999:98) Fritz thought that it 8 o'clock was Fritz dachte, dass es 8 Uhr gewesen ist Stechow (1999:98) (47) Fritz thought that it 8 o'clock been is
- Fritz dachte, dass es 8 Uhr ist (48) Fritz thought that it 8 o'clock is

4 Conclusion

In this paper, I argued for an ExtendedNow approach to the German present perfect. To account systematically for its preterit and perfective readings, a discourse based approach was proposed. More specifically, I argued for a dynamic perfect time span that the German present perfect introduces. Due to context, its length varies. I further argued for a "split-Reference time-hypothesis" much in the spirit of Kamp & Rohrer (1985) by

saying that Reichenbach's reference time (R) must be split into a semantic part and a part that operates on the discourse level. (R) is a time point relative to which (E) is located, the semantic part is called (D). (D) is used to describe temporal ordering of events in narration. (D) is a point in time set by an antecedent discourse in relation with which the following tense form establishes an anaphoric relation. (D) is used to identify RB of PTS. (D) is always identical to RB. If (D) is resolved to the final subinterval of (E), the PTS is identical to (E) and the present perfect has a preterit reading. If (D) is resolved to a point in time within PTS that is later than (E), PTS is not identical to (E) and the present perfect has a perfect has a

- (49) First restriction for (D) in the present perfect(D) can either be resolved to (E) or (R).
- (50) Second restriction for (D) in the present perfectIf the event time₁ for a present perfect₁ serves as (D) for an event time₂ that is before (S), the present perfect₁ has a preterit reading.
- (51) Third restriction for (D) in the present perfect If there is no event time₁ before (S) that takes the event time₂ of a present perfect as a (D) and if the final subinterval of PTS of the present perfect allows for a cause effect relation with the event time₁, (D) is located at (S).

This approach has the advantage that it considers context to be the essential part of disambiguation of the present perfect readings. As far as I know, the systematic disambiguation of the present perfect readings by context has never seriously been pursued.

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