

## (More) readings of the German present perfect

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The paper argues for a single uniform meaning of the German present perfect in the spirit of an Extended Now theory (McCoard 1978). As only context fully disambiguates between the different readings of the present perfect, I propose an analysis in terms of Kamp & Reyle's (1993) 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.

### 1. Introduction

In the literature, five major uses of the German present perfect have been identified (see Ehrlich & Vater (1989) and others): the preterit reading<sup>1</sup>, the universal, the existential, the resultative and the *hot news*. The last three are sometimes summarized as experiential readings. I call the experiential readings and the universal use perfect readings. Perfect reading is used in opposition to preterit reading.

The universal present perfect denotes a predicate that holds throughout the entire time interval introduced by the present perfect, stretching from a certain point in the past up to the present, see (1). The existential perfect asserts that the subject has a certain experience (see (2)). Nothing is said about a past up to the present reading. The *hot news* perfect reports an eventuality that just happened like in (3) and the perfect of result or resultative present perfect expresses the result of the underlying eventuality. It is only possible with telic predicates (see 4).

- (1) Ich habe Dich schon immer geliebt. (universal)  
I have you PARTICLE always loved  
'I have always loved you.'
- (2) Ich habe *Forrest Gump* dreimal gesehen. (existential)  
I have *Forrest Gump* three-times seen  
'I have seen *Forrest Gump* three times.'

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<sup>1</sup> I shall speak of the preterit tense when I refer to a morphological preterit and of the preterit reading when I refer to the preterit use of the present perfect.

- (3) Ich habe gerade meine Prüfung bestanden. (hot news)  
 I have just my exam passed  
 'I have just passed my exam.'
- (4) Ich habe meine Brille verloren. (resultative)  
 I have my glasses lost  
 'I have lost my glasses.'

Many analyses take the German present perfect to be ambiguous, having either a preterit (cf. 5) or a perfect meaning (cf. 6). In the preterit use, the present perfect is said to be always able to substitute for the preterit tense, see (7). This is not possible with the perfect use of the present perfect as in (8).

- (5) Als Opa aus dem Krankenhaus zurückgekommen ist, feierten wir. (preterit)  
 When grandpa from the hospital returned is celebrated we  
 'When grandpa returned from the hospital, we celebrated.'
- (6) Jetzt, wo Opa aus dem Krankenhaus zurückgekommen ist, (perfect)  
 Now where grandpa from the hospital returned is  
 feiern wir.  
 celebrate we  
 'Now that grandpa has returned from the hospital, we'll celebrate.'
- (7) Als Opa aus dem Krankenhaus zurückkam, feierten wir. (preterit)  
 When grandpa from the hospital returned celebrated we  
 'When grandpa returned from the hospital, we celebrated.'
- (8) \*Jetzt, wo Opa aus dem Krankenhaus zurückkam, (perfect)  
 Now where grandpa from the hospital returned  
 feiern wir.  
 celebrate we

However, these accounts cannot explain why the present perfect cannot always replace the preterit tense. While (9a) allows for a simultaneous and an anterior reading of the embedded tense relative to the reference time of the matrix verb, (9b) only allows an anterior reading. In other words: (9a) has the readings that Fritz thinks at 8 o'clock that it is 8 o'clock or that he thinks so at a point in time later than 8 o'clock. (9b) has only the second reading. From an approach assigning two distinct meanings, a preterit and a perfect meaning, to the present perfect, we expect the present perfect always to be able to substitute for the preterit tense without any change of meaning. As this is not the case, the present perfect has not the same meaning the preterit tense has. Rather, the present perfect has a single uniform meaning covering both its perfect and preterit uses.

- (9) a. Fritz dachte, dass es 8 Uhr war. (von Stechow 1999:98)<sup>2</sup>  
 Fritz thought that it 8 o'clock was  
 'Fritz thought that it was 8 o'clock.'

<sup>2</sup> The difference is already found in Latzel (1977:191).

- b. Fritz dachte, dass es 8 Uhr gewesen ist.  
Fritz thought that it 8 o'clock been is  
'Fritz thought that it was 8 o'clock.'

The position defended here differs from the standard assumptions about the disambiguation of the present perfect readings (cf. Iatridou, Anagnostopoulou & Izvorski 2001; Musan 2002; Pancheva 2003). According to the standard view, there is either semantic or pragmatic disambiguation. But as the following example suggests, the disambiguation of the different present perfect readings is context dependent. In the context of (11), (10) has a resultative reading, as the looking for the glasses is interpreted as the result of having lost them. When followed by (12), (10) has a preterit reading as the glasses were found again.

- (10) Ich habe meine Brille verloren ...  
I have my glasses lost
- (11) Ich finde sie einfach nicht.  
I find them simply not  
'I have lost my glasses. I simply cannot find them.'
- (12) ... und heute Morgen erst wieder gefunden.  
and today morning particle again found  
'I lost my glasses. I have not found them before this morning.'

To account for this context dependence, I analyse the different present perfect readings in terms of a discourse-based approach to tense. Temporal and rhetorical relations between tenses in a coherent text will be used to account for the different readings of the present perfect.

The paper is organised as follows. In section 2, I discuss previous approaches to the perfect readings. Section 3 introduces the meaning of the present perfect and the approach to tense I assume. Section 4 shows the interplay of *Aktionsart*, adverbial modification and the perfect readings. In section 5, disambiguation by context is explained. Section 6 concludes.

## 2. Previous approaches to the perfect readings

There is an ongoing discussion whether the perfect readings should be distinguished semantically or pragmatically (for the former see Dowty 1979; Mittwoch 1988; Iatridou, Anagnostopoulou & Izvorski 2001; Pancheva 2003; for the latter McCoard 1978; Klein 1994). My contribution to the discussion is that the different readings have to be disambiguated by context.

Some arguments seem to favour a semantic distinction between the present perfect readings. The first one concerns topicalisation in English.<sup>3</sup> As various authors argue, a topicalised *for*-adverbial only allows for a universal reading while an inner sentential *for*-adverbial allows for both an existential and a universal reading (see Dowty 1979).

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<sup>3</sup> This paper focuses only on German. For the cross-linguistic differences between the English and German present perfect, see Rothstein (in prep.).

- (13) a. Véronique has been in Lyon for four weeks. (universal / ??existential)  
 b. For four weeks, Véronique has been in Lyon. (universal / existential)

However, this view has been challenged. Abusch & Rooth (1990) and Rathert (2004) argue that an existential reading is also possible with a topicalised *for*-adverbial. But Rathert (2004) mainly uses data from *google*. Therefore, she cannot claim that the data is from native speakers. Hence, more empirical research is needed in order to correctly analyse the readings of the present perfect with topicalised *for*-adverbials. Moreover, we cannot exclude that, if there are any meaning differences to be found between the English (13a) and (13b), it may be the case that these differences are due to other factors (such as topicalisation) than the meaning of the present perfect.

There is no reason to assume two distinct perfect meanings in German as topicalised and innersentential *for*-adverbials allow for both the universal and the existential perfect.

- (14) a. Véronique ist vier Wochen lang in Lyon gewesen. (universal / existential)  
 Véronique is four weeks long in Lyon been  
 'Véronique has been in Lyon for four weeks.'  
 b. Vier Wochen lang ist Véronique in Lyon gewesen. (universal / existential)  
 Four weeks long is Véronique in Lyon been  
 'Véronique has been in Lyon for four weeks.'

A second argument apparently favouring a semantic distinction between the perfect readings was, to my knowledge, introduced by Brugger (1997). In English (and in German), an existential present perfect behaves like a preterit tense when used as embedding tense in indirect speech. It allows for two readings: in (15), Mary can either be sick when John says that she is sick or she can already have been sick. The two readings are not available, if a universal present perfect embeds a preterit tense. The only reading the embedded preterit tense in (16) has, is that Mary was sick before John said that she was. This seems to favour a semantic distinction between the universal and the existential present perfect.

(15) John has said that Mary was sick.

(16) John has always claimed that Mary was sick.

Again, this turns out not to be an argument for a semantic distinction between the universal and existential perfect. If a universal present perfect embeds a preterit tense, it logically follows that the preterit tense must be interpreted with respect to the time of utterance, as the eventuality denoted by the universal present perfect still holds at the time of utterance. Thus, the preterit tense behaves as if it is embedded under a present tense (cf. 17). In both cases, a simultaneous reading relative to the time of the matrix verb is impossible.

(17) John claims that Mary was sick.

To sum up, there is no valid argument for a semantic distinction between the present perfect readings. Moreover, there is a strong argument against such an approach. The universal present perfect is only possible, when modified by certain adverbials such as *schon immer* 'always'.<sup>4</sup> (15), for instance, can never be a universal perfect as it lacks appropriate

<sup>4</sup> Compare Iatridou, Anagnostopoulou & Izvorski (2001:196fn) for English.

adverbials. (16), on the other hand, is a universal perfect as it is modified by *always*. One would expect from a semantic distinction between the different present perfect readings that the different uses should also be possible without special adverbial modification.

I therefore do not adopt a semantic approach. Instead, I claim that only a discourse based approach fully accounts for the perfect readings. Consider the following ambiguous example. It can have a universal reading and as such the speaker still loves his addressee at the moment of speech. But it can also have a second reading, an existential one, under which the speaker does not love the addressee any longer. Only context fully disambiguates. When preceded or followed by (19), (18) has a universal reading. In the context of (20), (18) is an existential present perfect.

(18) Ich habe Dich immer geliebt.  
I have you always loved  
'I have always loved you.'

(19) Du bist die Beste.  
You are the best  
'You are the best.'

(20) Aber nun geht es nicht länger mit uns.  
But now goes it not longer with us  
'But it can't go on between us.'

My approach differs from the approaches mentioned above in exploring this context dependence. But before looking closer to context, I give the meaning of the present perfect in the next section.

### 3. The perfect meaning

My approach to the German present perfect comes to this (cf. Rothstein 2005). I combine Reichenbach's (1947) approach to tense with an Extended Now-analysis (XN) of the perfect. Reichenbach distinguishes between three points in time. A sentence is uttered at the moment of speech (S). The eventuality denoted by the main verb obtains at the event time (E). To account for the pluperfect (and according to Reichenbach's view for all other tenses as well) a further point in time is needed, the reference time (R). (R) is the point in time relative to which (E) is located. Take for instance the following example.

(21) Als er nach Hause kam, hatte sie bereits gespült.  
When he to home came had she already done-the-dishes  
'When he came home, she had already done the dishes.'

The time of doing the dishes is interpreted as being prior to the time of coming home. Hence, the event time of the pluperfect is evaluated relative to the event time of the preterit tense or in other words, the event time of coming home serves as a reference time (R) for the pluperfect sentence.

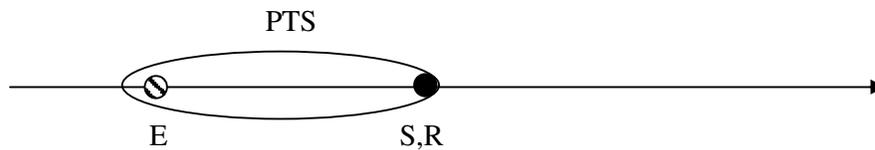
The meaning of the present perfect is analysed in terms of an Extended Now-analysis (XN). 'Traditionally', the XN is a time interval ending at the reference time set by the tense of the perfect auxiliary. Hence, the right boundary (RB) of XN is simultaneous to (R) of the

tense of the auxiliary. The left boundary (LB) is underspecified. Somewhere within the XN is the event time (E) located (see McCoard 1978; Iatridou, Anagnostopoulou & Izvorski 2001). This will be represented by  $E \subseteq \text{PTS}$ .

The German present perfect can be used as a future perfect. The most plausible reading (22) has is that the conference will not have ended before the moment of speech (S), but after (S) and prior to the time denoted by *morgen* 'tomorrow'. The reference time set by the tense of the auxiliary can therefore be after (S), but not before (S). I represent this by  $R \neg < S$ . To account for the future use of the German present perfect, the right boundary of RB cannot be at (S), but must end at (R). This will be represented by  $\text{RB} = R$ . As XN does not automatically end at the moment of speech, the interval the perfect introduces will be called in accordance with Iatridou, Anagnostopoulou & Izvorski (2001) *perfect time span* (=PTS). I represent the meaning of the German present perfect within Discourse Representation Theory (DRT) for reasons that will become clear in the following.

- (22) Morgen hat die Konferenz bereits aufgehört.  
 Tomorrow has the conference already ended  
 'The conference will have ended by tomorrow.'

(23) a.



b. Present perfect:<sup>5</sup>

S	R	E	PTS
R $\neg$ < S			
PTS (LB, RB)			
E $\subseteq$ PTS			
RB = R			

In the Extended Now approach, universal perfects are treated as perfects whose event time holds throughout the entire PTS including (R). But when it comes to universal perfects like (24), the traditional XN approach makes wrong predictions. As the context suggests, the 'living in Germany' can clearly not continue at the moment of speech.<sup>6</sup>

- (24) Er hat schon immer in Deutschland gewohnt,  
 He has particle always in Germany lived  
 aber vor kurzem ist er nach England gezogen.  
 but before recently is he to England moved  
 'He always lived in Germany, but he has moved to England recently.'

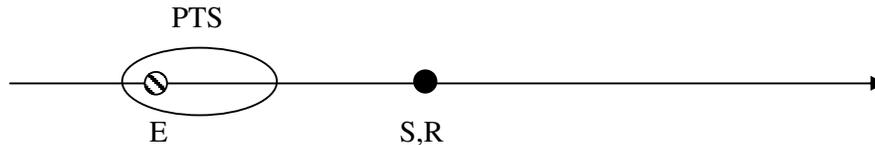
I therefore follow Pancheva & von Stechow (2004) who allow PTS to be separated from the reference time of the auxiliary. This has the advantage that universal perfects can be treated as

<sup>5</sup> (S) is an indexical discourse referent (cf. Kamp, van Genabith & Reyle 2004:75 for further discussion).

<sup>6</sup> As Rathert (2004:100) suggests, adverbs such as *schon immer* 'particle always' do not automatically include the present when modifying a perfect. Hence, the German universal present perfect is a perfect whose eventuality holds throughout the entire time interval introduced by the present perfect, but this eventuality does not necessarily hold at the present.

perfects whose event time holds throughout the entire PTS, but not necessarily at the moment of speech or more generally at the reference time set by the tense of the auxiliary. If I understand Pancheva & von Stechow (2004) correctly, they do not allow the left boundary and the right boundary of PTS to be simultaneous. I represent this by  $LB \neq RB$ . As will become clear in the following, this is an important difference to my approach.

(25) a.

b. Present perfect:<sup>7</sup>

S R E PTS
$R \rightarrow < S$
PTS (LB, RB)
$LB \neq RB$
$RB <  R$

My approach differs from Pancheva & von Stechow (2004) in the following point: the length of PTS varies due to the different readings of the German present perfect. In the default, the right boundary (RB) of PTS is simultaneous with the final subinterval of the event time (E). (RB) can be stretched to points in time later than (E) whenever this is necessary, for instance, in the context of certain adverbials or certain tenses. Moreover, I assume that the left boundary of the perfect time span is identical with the initial subinterval of the event time denoted by the present perfect. LB can also be stretched to points in time earlier than (E) when required by certain adverbials or context. Hence, the positions of LB and RB are not fixed, they are dynamic.

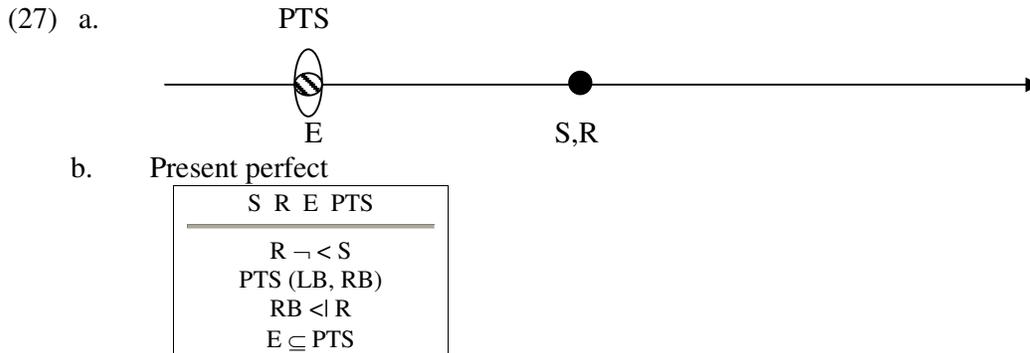
LB and RB can be identical, as with *Aktionsarten* lacking the subinterval property (such as *ankommen* ‘to arrive’) (E) is reduced to a single point in time. As in the default, LB is simultaneous to the initial and RB simultaneous to the final subinterval of (E), it follows that LB and RB can be identical. I therefore assume that the length of PTS and (E) are identical in the default.

Evidence for this approach comes from examples with coordinated universal perfects. In (26), the studying and the working do not end simultaneously, although this seems to be required by the adverbial *gleichzeitig* ‘at the same time’. Therefore, the right boundary of PTS must be dynamic (cf. Rothstein 2005 and in prep. for further arguments). Presumably, the studying and the working did not begin at the same time as well. Thus, LB must also be dynamic.

- (26) Er hat immer gleichzeitig studiert und gejobbt.  
 He has always at-the-same-time studied and worked  
 Aber dann hat er erst mit dem Studieren und dann mit  
 but than has he first with the study and then with  
 dem Jobben aufgehört.  
 the work stopped

<sup>7</sup> ‘ $RB <| R$ ’ means that RB may be before R or touch it.

The meaning of the German present perfect I assume is therefore as follows.



Let us now turn back to the readings of the present perfect. 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 present perfect readings, a discourse-based approach to tense will therefore be pursued.

Following Kamp & Reyle (1993), I therefore introduce a further point in time. The reference time point (Rtp) is used to account for the temporal ordering of events in texts: the preceding discourse serves as an Rtp with which the following tense form establishes an antecedent-anaphora relationship. The need for the Rtp becomes especially urgent with sequences in the pluperfect (see 28). The sequence starts with a preterit tense. The events ( $e_2$ ) to ( $e_6$ ) are temporally ordered. Fred first gets up, then takes a shower and so on. The correct temporal order of the events ( $e_2$ ) to ( $e_6$ ) cannot be given by referring to Reichenbach's reference time (R), since for the five pluperfects in (28) (R) is always the same: it is ( $E_1$ ), the event time of Fred's arrival. Rtp resolves that problem: Rtp<sub>2</sub> precedes Rtp<sub>3</sub>, which in turn precedes Rtp<sub>4</sub> and so on.

- (28) 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)

To avoid terminological confusion with Reichenbach's reference time, I call Kamp & Reyle's (Rtp) (D)iscourse time point. The definitions are as follows.

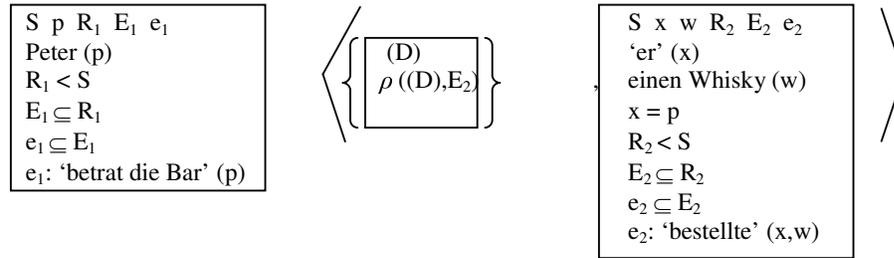
- (29) Reference time (R):  
(R) is a point in time relative to which (E) is located.
- (30) Discourse time point (D):  
(D) is a point in time set by an antecedent discourse in relation with which the following event time establishes an anaphoric relation.

In the following, (D) will be used to make predictions for the present perfect readings.

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

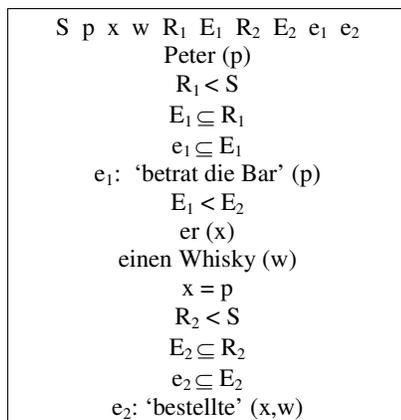
- (31) Peter betrat die Bar. Er bestellte einen Whisky.  
'Peter entered the bar. He ordered a whisky.'

(32)



In (31) and in its — somewhat simplified — representation (32), we find the discourse referents for the speech time (S), the event times (E<sub>1</sub>) at which Peter enters the bar and (E<sub>2</sub>) at which he orders a whisky. I follow Reichenbach (1947) by assigning the following meaning to the preterit tense: E, R < S. Hence, the first preterit tense sentence has the meaning E<sub>1</sub>, R<sub>1</sub> < S and the second E<sub>2</sub>, R<sub>2</sub> < S. We then find the eventualities (e<sub>1</sub>) and (e<sub>2</sub>). Eventuality is used as a cover term for states, processes and events. (e<sub>1</sub>) is the event of Peter entering the bar, (e<sub>2</sub>) of him ordering a whisky. This is represented by e<sub>1</sub>: 'betrat die Bar' (p) and e<sub>2</sub>: 'bestellte' (x,w). (e<sub>1</sub>) obtains at the event time (E<sub>1</sub>) which is represented as e<sub>1</sub> ⊆ E<sub>1</sub>. P stands for Peter, w for whisky and x represents the pronoun 'he'. The meaning of the two sentences is given in the two 'big' boxes. The temporal relation between these two consists of a presupposition of the second sentence. The presuppositional part is in the little box. This presupposition must be resolved in order to fix the temporal relation between the eventualities (e<sub>1</sub>) and (e<sub>2</sub>). The resolution of the presupposition consists of finding specifications for (D) and ρ. ρ is the temporal relation between the event time (E<sub>2</sub>) and (D) that 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 relation between (E<sub>1</sub>) and (E<sub>2</sub>) is the relation of succession, so (E<sub>1</sub>) must precede (E<sub>2</sub>). (D) must therefore be resolved to (E<sub>1</sub>) and ρ is a 'prior-to' relation. As (D) is resolved to (E<sub>1</sub>) and p is specified as '<', we can now incorporate the presupposition into the representation of the second sentence. The final representation for (31) is as follows.

(33)



Kamp, van Genabith & Reyle (2004) define (D) as always referring to an event time, but 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, rather than the eventuality itself. In (34), (D) clearly does not refer to the result of having lost the glasses as the glasses were found again, while in (35) the glasses are still lost. It is therefore more plausible to assume that, in (35), (D) refers to the result of having lost them.

- (34) Ich habe meine Brille verloren (preterit)  
 I have my glasses lost  
 und heute Morgen erst wieder gefunden.  
 and today morning particle again found  
 'I lost my glasses. I have not found them before this morning.'
- (35) Ich habe meine Brille verloren. (resultative)  
 I have my glasses lost.  
 Ich finde sie einfach nicht.  
 I find them simply not  
 'I have lost my glasses. I simply cannot find them.'

(D) provides a useful tool to account for the present perfect readings. The present perfect has a preterit reading when the final subinterval of the event time of the present perfect serves as a (D) for another contextually given event time. Take, for instance, (36) as an example: the following sentence contains a preterit tense for which (E) of the present perfect serves as an evaluation time. As the event time (E) of the preterit tense is located before (S), (D) must also be located before (S), because the asking for Sandrine's hand precedes the wedding. (D) is therefore resolved to the event time (or more precisely to the final subinterval of the event time) at which Albin asked for Sandrine's hand.

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

Let us now turn to the perfect readings of the present perfect. In (37), the present perfect sentence is followed by a sentence containing a present tense.

- (37) Albin hat um Sandrines Hand angehalten.  
 Albin has for Sandrine's hand asked.  
 Die Hochzeit findet im Juli statt.  
 The wedding takes in July place.  
 'Albin asked for Sandrine's hand. The wedding will take place in July.'

Again, (D) of the second sentence must be resolved by context. This time, (E) of the following present tense is not before (S). The wedding is the result of having asked for Sandrine's hand. As the wedding has not already taken place, (D) is resolved to (S). This leads to the generalisation that, when (D) is not simultaneous to the final subinterval of (E), the present perfect has a perfect reading. Moreover, by assuming that the point in time to which (D) is resolved to be always the right boundary (RB) of the perfect time span PTS, we actually can restrict the setting of RB: RB is (D).

The contrast between (9a) and (9b) is resolved if the present perfect is analysed as a compositional tense consisting of a present tense and a past participle (cf. Rothstein 2004). (9a) and (9b) are repeated as follows.

- (38) a. Fritz dachte, dass es 8 Uhr war. (von Stechow 1999:98)<sup>8</sup>  
Fritz thought that it 8 o'clock was  
'Fritz thought that it was 8 o'clock.'  
b. Fritz dachte, dass es 8 Uhr gewesen ist.  
Fritz thought that it 8 o'clock been is  
'Fritz thought that it was 8 o'clock.'

The present perfect denotes a time prior to the present tense. A bound present tense only allows for a simultaneous reading relative to the reference time of the binding verb (see 39). A bound present perfect must therefore express a time prior to the time of the matrix verb (see 9b). It can only replace the preterit tense in a 'prior to matrix event time' relation. I argue that (D) is not sensitive to binding as a transformation from direct to indirect speech does not change the temporal order of the reported events. The order of embedded event times in (40) corresponds to the one in the non-embedded sequence of pluperfects in (28).

- (39) Fritz dachte, dass es 8 Uhr ist.  
Fritz thought that it 8 o'clock is  
'Fritz thought that it was 8 o'clock.'
- (40) Peter said that Fred arrived at 10 ( $e_1$ ). He further reported that Fred had got up at 5 ( $e_2$ ), had taken a long shower ( $e_3$ ), had got dressed ( $e_4$ ), had eaten a leisurely breakfast ( $e_5$ ) and had left the house at 6:30 ( $e_6$ ).

(D), however, cannot be resolved to points in time outside the time interval the perfect introduces. More precisely, (D) cannot be resolved to a point in time earlier than (E) and later than (R). Consider the following: the event time at which the wedding obtains cannot take a (D) that is prior to the moment in time when Albin asks for Sandrine's hand.

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

Second, (D) cannot be later than (R). In (42), for instance, our party is simultaneous to (R) of the present perfect. It is not possible that (D) is later than (R).

- (42) Jetzt, wo Albin zurückgekommen ist, feiern wir.  
Now where Albin arrived is celebrate we  
'Now that Albin has arrived, we'll celebrate.'

The emerging generalisation is as follows.

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<sup>8</sup> The difference is already found in Latzel (1977:191).

- (43) Restriction for (D) in the present perfect  
 (D) can either be resolved to (E) or to a point in time not later than (R).

In the following, the discussion of the perfect readings of the present perfect is kept rather shortly, since the various interactions between *Aktionsart*, adverbial modification and the perfect have been analysed in detail (cf. among many others Ehrich 1992; Iatridou, Anagnostopoulou & Izvorski 2001 and Musan 2002). But the full interplay between these three and context has, as far as I am aware, never been pursued seriously.

#### 4. *Aktionsart, adverbial modification and present perfect readings*

*Aktionsart* has a strong influence on the readings of the present perfect (cf. especially Iatridou, Anagnostopoulou & Izvorski 2001). The universal present perfect is only possible from verbs having the subinterval property: from *states*, *activities* and maybe *accomplishments*. Consider the following example. The main verb of the matrix sentence is a state and, as such, it denotes duration.

- (44) Ich habe schon immer gewusst, (universal)  
 I have particle always known  
 dass der Mond aus Käse ist.  
 that the moon of cheese is  
 'I have always known that the moon is made of cheese.'

In the following example, we have an activity verb. If we commit ourselves to the assumption that one can run for years without interruption, a universal perfect becomes possible. You maybe remember Tom Hanks as Forrest Gump who is running for more than three years through America. In the film, he does not know what he is running for. But, as he makes clear, universal perfects from activities are possible.

- (45) Forrest Gump ist schon immer gerannt. (universal)  
 Forrest Gump is particle always run  
 'Forrest Gump has always run.'

It is not impossible to think of accomplishments in universal perfects. Consider the following.

- (46) Er hat von 1980 bis jetzt sein Traumhaus gebaut. (universal)  
 He has from 1980 until now his dream-house built  
 'He was building his dream house from 1980 until now.'

If we think of finishing the house at the moment of speech, (46) is certainly a universal perfect.

The resultative present perfect is only possible from telic verbs (from achievements and accomplishments), because only these introduce what Parsons (1990) calls *target states*.<sup>9</sup>

<sup>9</sup> Parsons (1990:235) defines target states as follows: 'It is important not to identify the Resultant-state of an event with its 'target' state. If I throw a ball onto the roof, the target state of this event is the ball's being on the roof, a state that may or may not last for a long time. What I am calling the Resultant-state is different; it is the state of my having thrown the ball onto the roof, and it is a state that cannot cease holding at some later time.'

- (47) Der Zug ist angekommen. (resultative)  
 The train is arrived  
 'The train has arrived.'
- (48) Ich habe meine Brille verloren (resultative)  
 I have my glasses lost  
 'I have lost my glasses.'

In other *Aktionsarten*, the target state meaning of the verb is not lexically encoded. For instance, in the following example, there is no lexical target state implied. The fact that I am breathless is not derived from the meaning of 'to run', but (at least what concerns myself) from what we know about running.

- (49) Ich bin auf den Bus gerannt. Deshalb bin ich jetzt außer Atem.  
 I am to the bus run. That's-why am I now without breath  
 'I have run to catch the bus. That's why I'm breathless now.'

(49) is therefore not a resultative perfect. Target states are represented as TARG (E), the time at which the target state obtains.

There are no such restrictions for the preterit, the existential and the *hot news* present perfect. They are possible with all types of *Aktionsart*. In the following, I treat the *hot news* reading as a special variant of the existential reading as the only difference between the two is that the former requires the eventuality of the main verb to occur in a recent past.

The relation between *Aktionsart* and the present perfect readings is summarized in table 1 where '+' indicates that the reading is available and '-' that it is not.

	<i>Aktionsart</i>			
	state	activity	achiev	Accomp
Universal	+	+	-	+
existential	+	+	+	+
resultative	-	-	+	+
preterit	+	+	+	+

**Table 1:** *Aktionsart* and present perfect readings

Adverbial modification further restricts the present perfect readings. The universal present perfect is only possible under certain adverbial modification (see Iatridou, Anagnostopoulou & Izvorski 2001:196f for English). In English, the adverbs requiring the universal reading are *at least since*, *ever since*, *always*, *for five days now*. Schipporeit (1971) states that adverbials such as *schon immer* 'particle + always', *schon oft* 'particle + often', *schon drei Jahre* 'for three years' and *noch nie* 'particle never' yield a universal reading of the present perfect. In (50), for instance, the speaker still loves his or her addressee at the moment of speech. The universal reading is not obligatory with *immer* 'always'. (51) is ambiguous between a universal and an existential reading.

- (50) Ich habe Dich schon immer geliebt. (universal)  
 I have you particle always loved  
 'I have always loved you.'

- (51) Ich habe Dich immer geliebt. (universal/existential)  
 I have you always loved  
 'I have always loved you.'

The interplay of *Aktionsart*, adverbial modification and the perfect readings is summarized in the following table. Again, '+' means that the reading is available. The '+' in obligatory adverbial modification means that the universal perfect is only available when modified by adverbials such as *schon immer* 'always' etc. The other readings do not require adverbial modification.

	Adverbial modification				
	VP: <i>Aktionsart</i>				Obligatory
	State	Act.	Ach.	Acc.	
Universal	+	+	-	+	+
Existential	+	+	+	+	-
Resultative	-	-	+	+	-
Preterit	+	+	+	+	-

**Table 2:** *Aktionsart*, adverbial modification and present perfect readings

A more detailed discussion of the interplay between the perfect readings and adverbial modification in German is found for example in Schipporeit (1971) and Musan (2002), so I do not develop this point any further.

### 5. Disambiguation by context

But this is not the full story. One can, for instance, not tell which reading the contextless (10) –which I repeat as (52)– has. As (53) and (54) show, (52) is ambiguous between a resultative and a preterit reading. In (53), the result of having lost the glasses is the reason why I am looking for them. In (54), the glasses were lost at some point in the past, but luckily found again. Thus, only context fully disambiguates between the readings of the present perfect.

- (52) Ich habe meine Brille verloren.  
 I have my glasses lost  
 'I have lost my glasses.'
- (53) Ich habe meine Brille verloren. (resultative)  
 I have my glasses lost.  
 Ich finde sie einfach nicht.  
 I find them simply not  
 'I have lost my glasses. I simply cannot find them.'
- (54) Ich habe meine Brille verloren (preterit)  
 I have my glasses lost  
 und heute morgen erst wieder gefunden.  
 and today morning particle again found  
 'I lost my glasses. I have not found them before this morning.'

Context also decides whether the present perfect has an existential or a universal reading, if adverbial modification does not unambiguously trigger one of the two readings. An example is (55) that can be used as in (56) or (57). *Immer* ‘always’ does not obligatorily require a universal perfect. (56) is an existential and (57) a universal present perfect. Again, a discourse-based approach becomes necessary.

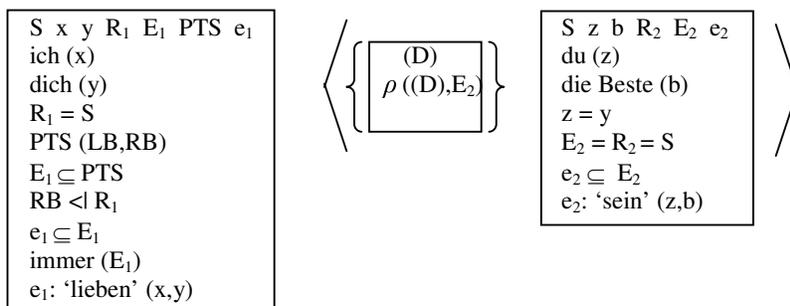
(55) Ich habe Dich immer geliebt.  
I have you always loved  
‘I have always loved you.’

(56) Ich habe Dich immer geliebt, (existential)  
I have you always loved,  
aber nun geht es nicht länger mit uns.  
but now goes it not longer with us  
‘I have always loved you, but it can't go on between us.’

(57) Ich habe Dich immer geliebt. Du bist die Beste. (universal)  
I have you always loved. You are the best  
‘I have always loved you. You are the best.’

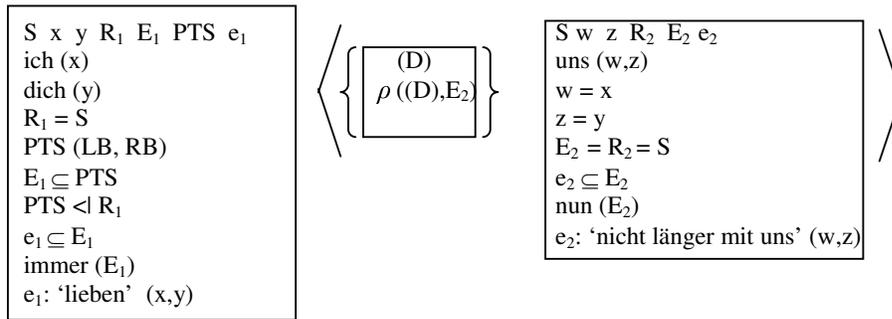
Before making generalisations, I give some examples of how the interplay between *Aktionsart*, adverbial modification, and discourse works in detail. (58) and (59) are the representations for (57). The presupposition resolution works like in (32) and (33), and it won't be explained here. From *Aktionsart*, only the existential and universal present perfects are allowed. The adverbial modification *immer* ‘always’ allows for both the existential and the universal perfect. As the present tense of the second sentence suggests that the speaker still loves his addressee, (D) is resolved to (E<sub>1</sub>), denoted by the present perfect which must hold at (S). Only in the universal perfect does (E<sub>1</sub>) hold at (S) and by substitution at (R). (57) is therefore a universal present perfect.

(58)

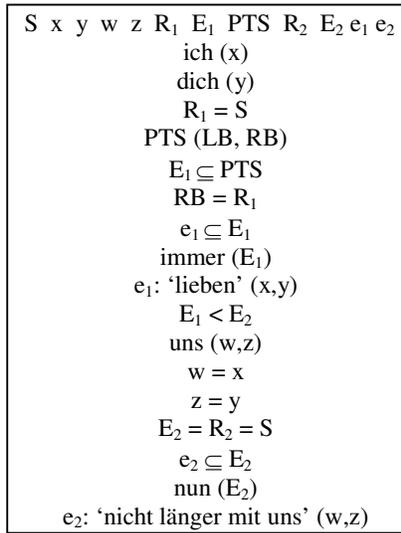




(60)



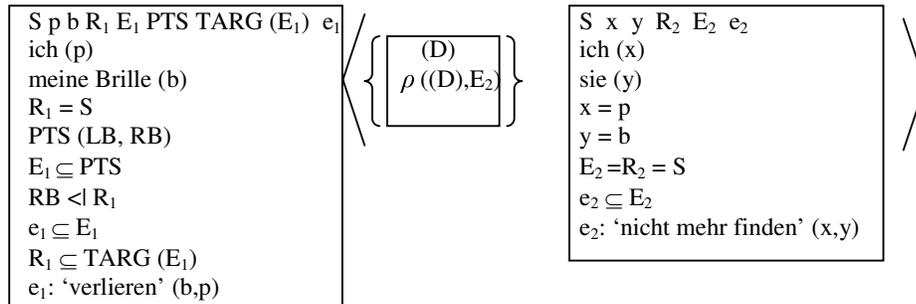
(61)



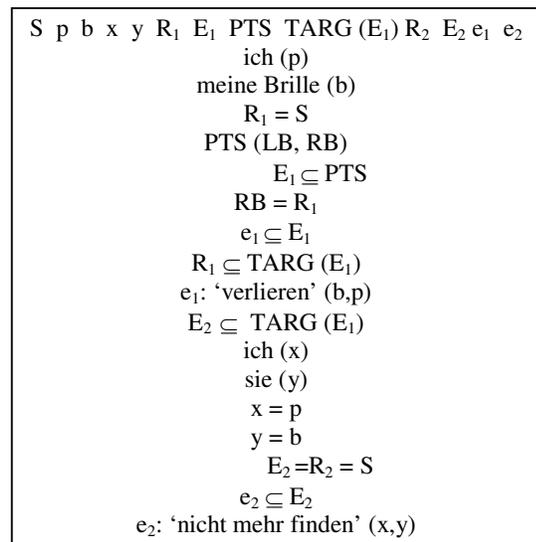
Let us now turn to an example for the resultative perfect reading. The DRSs for (53) are given in (62) and (63). First, the *Aktionsart* is an achievement. Thus, *Aktionsart* does not allow for a universal reading. Second, there is no adverbial modification. The existential, resultative or preterit readings are therefore possible, but not the universal. Third, the following eventuality from the present tense sentence establishes a rhetorical relation with the present perfect. *I simply cannot find my glasses* is interpreted as the result of *having lost them*. If he or she had not lost his glasses, he or she would not be looking for them. (D) is therefore resolved to TARG (E),<sup>10</sup> the target state of having lost the glasses.

<sup>10</sup> This does of course not mean that it is resolved to the target state of the event time, but to the time at which the target state obtains.

(62)



(63)



It is now possible to give generalisations for the perfect readings. As we have seen so far, (D) of a following tense can be resolved to distinct points in time instantiated by a present perfect. As I claim, its resolution gives rise to the different present perfect readings.

As we have seen in section 3, the preterit reading arises if the final subinterval of the event time (E<sub>1</sub>) of a present perfect serves as a (D) for another contextually given event time (E<sub>2</sub>) and if (E<sub>1</sub>) does not hold at (R). This is the case if (E<sub>2</sub>) is before the moment of speech (see 36, which I repeat as 64). We represent this as RB (E) = (D) where RB (E) means that RB is the final subinterval of (E).

- (64) Albin hat um Sandrines Hand angehalten.  
 Albin has for Sandrine's hand asked.  
 Die Hochzeit fand im Juli statt.  
 The wedding took in July place.  
 'Albin asked for Sandrine's hand. The wedding took place in July.'

If a point in time later than (E<sub>1</sub>) of the present perfect serves as a (D) for another contextually given event time (E<sub>2</sub>), this present perfect has an experiential reading. The experiential reading arises, if (E<sub>2</sub>) is not before (S), cf. (37), which I repeat below.

- (65) Albin hat um Sandrines Hand angehalten.  
Albin has for Sandrine's hand asked.  
Die Hochzeit findet im Juli statt.  
The wedding takes in July place.  
'Albin asked for Sandrine's hand. The wedding will take place in July.'

If ( $E_1$ ) of the present perfect serves as a (D) for another ( $E_2$ ) not being before (S), and if ( $E_1$ ) holds at (R) and by substitution at (S), the present perfect in question has a universal reading. This has been illustrated with (57), which I repeat for reading convenience.

- (66) Ich habe Dich immer geliebt. Du bist die Beste. (universal)  
I have you always loved. You are the best  
'I have always loved you. You are the best.'

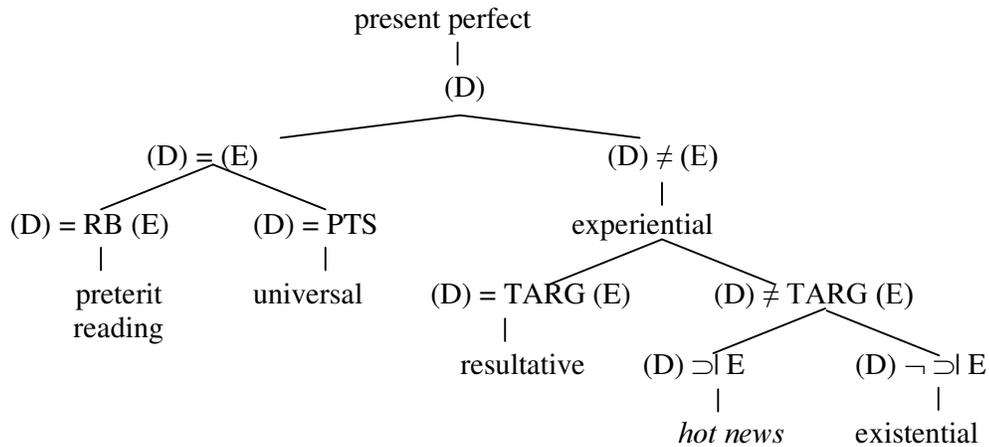
Hence, the universal and the preterit reading have in common that subintervals of their ( $E_1$ ) serve as (D) for a contextually given event time ( $E_2$ ). Only in the universal present perfect, a subinterval of ( $E_1$ ) can hold at (S). In examples like (57)/(66), it is intuitive that not a subinterval of ( $E_1$ ) serves as a (D) for ( $E_2$ ), but rather the entire ( $E_1$ ). As we defined the universal perfect as a present perfect whose event time holds throughout the entire PTS up or close to (S), we shall speak of the universal perfect as a perfect whose PTS serves as (D) for ( $E_2$ ). This will be represented by (D) = PTS.

The *hot news*, the existential and the resultative present perfect were summarized as experiential readings. They have in common that no subinterval of their event time ( $E_1$ ) serves as a (D) for an event time ( $E_2$ ) from context. In the existential present perfect, a point in time later than ( $E_1$ ) serves as a (D) for the contextually given ( $E_2$ ). The *hot-news* perfect is analysed as a subclass of the existential present perfect, requiring its event time ( $E_1$ ) to be located shortly before the moment of speech. As for all experiential readings, a point in time later than ( $E_1$ ) serves as (D) for ( $E_2$ ). ( $E_1$ ) and (D) must be located quite close to each other. This will be represented by '⊃|' which stands for a vague temporal relation between two points in time being close to each other.

The existential and the resultative present perfect differ in that only in the latter the point in time which serves as a (D) for the contextually given ( $E_2$ ) must be a point in time at which the target state denoted by the resultative present perfect holds. This is represented as TARG (E). In case of the existential perfect, (D) is not resolved to TARG (E).

The possible temporal positions of (D) are summarized as follows.

(67) the positions of (D) and the perfect readings



The possible interactions of *Aktionsart*, adverbial modification and discourse can now be summarized as follows (the *hot news* perfect is here considered as a special case of the existential perfect).

	(D): Discourse								
	Adverbial modification								
	VP: <i>Aktionsart</i>				Obligatory				
	State	Act.	Ach.	Acc.		(D) = RB (E)	(D) = TARG(E)	(D) = PTS	
universal	+	+	-	+	+	-	-	+	
existential	+	+	+	+	-	-	-	-	
resultative	-	-	+	+	-	-	+	-	
preterit	+	+	+	+	-	+	-	-	

**Table 3:** Interplay of *Aktionsart*, adverbial modification and discourse

Note that not all combinations of (E), TARG (E) and PTS are possible. Theoretically, eight combinations should be available, but table 3 only contains four. For obvious reasons, it is impossible to refer simultaneously to the time at which an eventuality obtains and to its target state, because there is no target state if the eventuality has not culminated. Therefore, the target state is after the event time. For the same reason, it is not possible to refer simultaneously to the target state and PTS, because (D) = PTS was defined such that (E) holds throughout the entire PTS. Referring to the target state and PTS at the same time therefore means to refer to the target state and the event time and as we have seen, this is not possible. It is also not possible to refer only to the final subinterval of (E) and to the entire PTS at the same time, because this would lead to a contradiction. As there are only four possible combinations and four readings, the identification of the present perfect readings by context is unambiguous.

Let me briefly point out the reason why I insist on (D) and why I do not adopt approaches to temporal anaphors such as the one proposed by Lascarides & Asher (1993). (D) is a rather

‘vacuous’ notion, as it does not make predictions about when (D<sub>1</sub>) precedes or follows a contextually given (D<sub>2</sub>). (D) is a reflex of temporal and rhetorical relations tenses in a coherent text enter. But as (D) is a useful tool to make predictions for the present perfect readings, it actually becomes less ‘vacuous’. As far as I can see, (D) is fully compatible with the assumptions about temporal progression made by Lascarides & Asher (1993). Moreover, it allows making very simple generalisations for the perfect readings.

### 6. Conclusion

In this paper, I claimed that only context fully disambiguates the present perfect readings. Contrary to standard assumptions made in the literature, a discourse-based approach to the present perfect readings has therefore been defended. It has been argued that the interplay of *Aktionsart*, adverbial modification and the setting of (D) by discourse fully disambiguates the different readings. The results of this interplay were summarized in table 3 and won’t be repeated here.

### Acknowledgements

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