Anteriority versus Extended-Now: Theories of the German Perfect[1]

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1. Overview

There are two main theories of the German Perfect. According to the first theory, the Perfect expresses anteriority. The second theory, in contrast, maintains that the Perfect denotes an *Extended-Now*-interval.

I will discuss these theories in sections 1 and 2. In section 3, I will present my own analysis of the German Perfect. Section 4 summarizes the results.

2. The Anteriority-Theory of the German Perfect: E<R

Reichenbach (1947) introduces three parameters for the analysis of tense: event time (E), reference time (R) and speech time (S). Let me illustrate these with the help of the following example:

(1) Zu   dieser Zeit hatte die   Katze die   Maus   schon   gefangen
     at   that   time had   the   cat   the   mouse already   caught
     'At that time, the cat had already caught the mouse'

A Reichenbachian analysis of (1) goes as follows. On a time axis, the event time E is located somewhere before the speech time S. In addition, E is also located before a time which is referred to by *zu dieser Zeit*. This time is the reference time R. The diagram below shows the scenario for (1) (the arrow represents the time axis):

E	R	S
event time	reference time	speech time

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catching of the mouse   "at that time"

Thus, the reference time is a kind of perspective point. The event time in (1) is 'seen from' the reference time as being already completed.

The anteriority-theory of the German Perfect uses the three Reichenbach-parameters E, R and S. The Perfect is a relation stating that E is before R and that R is identical to S (or, expressed as a simple formula: $E<R$ & $R=S$). Many authors adhere to this theory, including Helbig & Buscha (1974:128), Latzel (1977:36) and Heidolph et al. (1984:509ff.), to mention just a few. These authors ascribe the meaning $E=R$ & $E<S$ to the Preterite. The following data are problematic for this theory (examples from Schipporeit 1971):

(2)   Nina is given a fur coat as a present. She says:
       So   einen Mantel habe ich   mir   schon jahrelang gewünscht!
       such a   coat   have I   me   already for-years wished!
       'I've wanted a coat like this for years!'

(3)   Greff   lag   zu diesem Zeitpunkt schon jahrelang zu
       Greff   lay   at this   time   already for-year   in

       Bett und nahm   alles   in   die Hand, nur kein Buch
       bed   and took   everything into the hand, only no   book

       'At this time, Greff had already been lying in bed for years, ... and she picked up everything, but never did she pick up a book'

In (2), E continues up to S. In (3), this is not the case. The condition $E<S$ thus can only be used for the Preterite but not for the Perfect.[2]

But within the Reichenbachian framework, there are also studies which do not postulate an identity-relation between R and E (in the case of the Preterite) and between R and S (in the case of the Perfect). These studies use an interval-semantics; Reichenbach only talks of points of time. These studies cannot be refuted by (2) and (3). An example of these more elaborate Reichenbachian studies is Ehrich (1992).

Regarding the meaning of tense, Ehrich (1992:67ff.) distinguishes between two components, namely, intrinsic and contextual meaning. The intrinsic meaning specifies a relation between E and R. The contextual meaning is a relation between R and S. In principle, three relations are possible:

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[2]   As for the Perfect, the condition $E<S$ comes about via a transformation of the meaning rule $E<R$ & $R=S$. The transformation is as follows: $E<R$ & $R=S \leftrightarrow E<S$. As for the Preterite, the condition $E<S$ is already part of the meaning rule: $E=R$ & $E<S$.

(4)   a. association: X,Y. This means either X=Y or X $\subset$ Y or X $\supset$ Y or YOX
                (O stands for overlap)
     b. anteriority: X < Y
     c. posteriority: X > Y

Perfect and Preterite have the following meanings:

(5)   Perfect: E<R (intrinsic) & S,R (contextual)
(6)   Preterite: E,R (intrinsic) & R<S (contextual)

If *S,R* in the case of the Perfect and *E,R* in the case of the Preterite are interpreted as overlapping, then the data in (2) and (3) receive the following explanation. Adverbs like *schon jahrelang* have the effect that E continues up to R. In the case of (2), the wishing would continue up to an R which overlaps with S. In the case of (3), the lying would continue up to a past R (i.e. an R before S). Thus, the data (2) and (3) are no problem for Ehrich (1992). But what about the following data?

(7)   Ich habe mir schon immer ein   Fahrrad gewünscht
     I   have me   already always a   bike   wished
     'I've always wanted a bike'
(8) * Ich wünschte mir schon immer ein Fahrrad
     I   wished   me   already always a   bike
     'I've always wanted a bike'

Schon einmal, schon oft and *schon immer* are only compatible with the Perfect and the Pluperfect. This has been shown by Latzel (1977:197ff.) and Schipporeit (1971:134). In addition, I looked at the COSMAS-corpus: 308 of 315 tokens (i.e. 98 percent) of *schon einmal, schon oft* and *schon immer* were used in combination with the Perfect or the Pluperfect.[3]

   Now let's turn to the explanation for (7)-(8). In the framework of Ehrich (1992), (7) could be explained in analogy to (2): E continues up to R. But how, then, can (8) be ungrammatical? Why can the wanting not reach up to an R in the past of S like the lying in (3) does (in (3), the lying continues up to an R in the past of S)? Obviously, an explanation within Ehrich's (1992) system is impossible. More precisely, within Ehrich's (1992) theory it is impossible to formulate meaning rules for *schon immer* and *schon jahrelang* which could explain (together with the assumed semantics of the tenses) the differences in grammaticality in (2), (3), (7) and (8).

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3   COSMAS is an internet-corpus of German from the Institut für Deutsche Sprache (IDS) Mannheim (http://www.ids-mannheim.de/~cosmas).

3. The Extended-Now-Theory of the German Perfect

According to the *Extended-Now*-Theory, the Perfect denotes an interval of time the starting point of which lies in the past and the endpoint of which is speech time. The term *Extended Now* was introduced by McCoard (1978:123):

> The reader who has gone through the preceding sections will have noticed that at several points we argued the merits of an analysis of the perfect as the marker of prior events which are nevertheless included within the overall period of the present, the extended now, while the preterit marks events assigned to a past which is concluded and separate from the extended present.

The *Extended-Now*-Theory itself is older than McCoard (1978), Pickbourn (1789) being the first to use the term. Originally, the theory was developed for English. First remarks about the *Extended Now* in German are to be found in Behaghel (1924), and one of the most important works using this idea is Schipporeit (1971). Stechow (1999) is a theory which has applied the *Extended Now* to German in more detail.

3.1   Extended-Now-Data in German

Behaghel (1924:293) says:

> Das Perfekt bezeichnet eine Handlung, die aus der Vergangenheit sich bis in die Gegenwart fortsetzt: [...]
> > ob ich gleich nun seit acht Jahren mich auszuforschen versucht habe [...]
> > hats lang verdient ums Volk von Unterwalden [...]
> > ich hab schon lang auf den Ruf des Herrn gewartet [...]
> ('The Perfect denotes an event which stretches from the past until speech time:
> > ob ich gleich nun seit acht Jahren mich auszuforschen versucht habe [...]
> > hats lang verdient ums Volk von Unterwalden [...]
> > ich hab schon lang auf den Ruf des Herrn gewartet [...]')

I will talk about these examples later on. Just to anticipate the outcome of the discussion: these examples do not force an analysis of the Perfect as an *Extended Now*. Schipporeit (1971) analyzes the Perfect syncategorematically. There are three rules:

> We have demonstrated that German employs a systematic combination of tenses and two groups of stretch-of-time phrases:
>
> > [1] Perfect and pluperfect tense forms of durative verbs in connection with UTN-phrases express what has been (or had been) up to the present or past 'Now', with the definite implication that this has come (or came) to an end at that very point. [...]
> >
> > [2] Perfect and pluperfect tense forms of durative verbs, if employed together with EPF-phrases, express a state or action which ended in the past, i.e. prior to the conversational or narrative 'Now'. [...]
> >
> > [3] Perfect and pluperfect tense forms of both durative and perfective Verbs, if used together with certain 'scanning' adverbs like *schon oft, oft, jemals, nie*, etc., express

intermittent occurrences (or none at all) distributed over a stretch of time. If UTN-adverbs like *schon oft* are used, the stretch of time involved reaches into a 'Now'; if EPF-adverbs like *oft* are used, the stretch of time terminates prior to the conversational or narrative 'Now'.
(Schipporeit 1971:191f.)

UTN-phrases denote intervals reaching up to reference time or including reference time. EPF-phrases denote intervals that are located entirely in the past (P) or in the future (F). The intervals denoted by EPF-phrases never include the reference time, cf. Schipporeit (1971:13f.). As it stands, the definition of UTN-phrases is imprecise. Therefore, I will use the term *UTN-phrase* if the interval denoted does not include reference time, and I will use the term *IN-phrase* if the interval denoted includes reference time.

How can the *Extended Now* be motivated? To answer this question, I would like to return to the data from Behaghel (1924):

(9) ob ich gleich   nun seit acht Jahren mich auszuforschen
     if I   however now for eight years   me   examine

     versucht habe
     tried   have

     'I have been thinking about myself for eight years now'

(10) hats lang verdient   ums   Volk von Unterwalden
     has long deserved about-the folks of   Unterwalden
     'he has deserved something for doing all this for the people of Unterwalden'

(11) ich hab schon   lang auf den Ruf des   Herrn gewartet
     I   have already long for the call of-the Lord waited
     'for a long time now, I have been waiting for the call of the Lord'

According to Schipporeit's classification, *lang* in (10) is an EPF-phrase and rule [2] applies. Anteriority should be expected, and indeed, this is what we find:

> Observe that the action or state described by the verb in connection with the time phrase no longer exists: [...]
> 'Ich weine doch vor Glück', sagte sie. 'Ich hab so lange auf dich gewartet.'
> (She said: 'I'm crying because I'm so happy. I've been waiting for you so long.')
> (Schipporeit 1971:109)

EPF-phrases do not force an *Extended-Now*-analysis of the Perfect. EPF-data can easily be analyzed within a Reichenbachian framework.

Seit acht Jahren and *schon lang* in (9) and (11) are UTN-phrases, and rule [1] applies. There should be an *up-to-now*-reading, and the reference time should be excluded. Indeed, this is the case:

Oh, da sind Berge, die seit Jahrtausenden ruhig gelegen haben, und Heere mit Kanonen und Elefanten sind drübergezogen, was soll man machen, wenn sie plötzlich anfangen, hops zu machen, weil es unten so geht: rrrrrr rumm. (Schipporeit 1971:98)

('Oh, there are mountains which have been quiet for millennia, and armies with cannons and elephants have gone over them. What should one do when they start to move suddenly, because underneath it is going rrrr rumm.')

Wir haben schon lange auf einen Bericht über das Papsttum von Ihnen gewartet. Nun ist er da! (Schipporeit 1971:97)[4]

('We have waited so long for a report about the papacy from you. Now it is here!')

UTN-phrases do not force an analysis of the Perfect as an *Extended Now*. It is possible to analyze UTN-data within more elaborate Reichenbachian studies like Ehrich (1992), as I have demonstrated in section 1 (cf. my comments on the *schon-jahrelang*-data).

According to Schipporeit, one has to distinguish between EPF-, UTN- and IN-phrases. EPF- and UTN-phrases do not force an analysis of the Perfect as an *Extended Now*. But what about IN-phrases, that is *schon einmal, schon oft* and *schon immer* (cf. Schipporeit 1971:133 for this list)? Indeed, IN-phrases show that the Perfect has to be analyzed as an *Extended Now*. To see this, consider the following argumentation.

One difference between UTN- and IN-phrases concerns their compatibility with the Preterite. UTN-adverbs are compatible with the Perfect, with the Pluperfect and with the Preterite (cf. Schipporeit 1971:16ff. and Latzel 1977:165). In contrast to this, the IN-adverbs *schon einmal, schon oft* and *schon immer* are only compatible with the Perfect and with the Pluperfect (cf. Latzel 1977:197 ff, Schipporeit 1971:134 and my own COSMAS-corpus, which I mentioned in section 1). The differences in grammaticality observable in the examples (2), (3), (7) and (8) (repeated here as (12)-(15)) are crucial:

(12)	*UTN-adverb with Perfect:*	Nina bekommt einen Pelzmantel geschenkt. Sie sagt: So einen Mantel habe ich mir schon jahrelang gewünscht! (Schipporeit 1971) 'Nina is given a fur coat as a present. She says: I've wanted a coat like this for years!'
(13)	*UTN-adverb with Preterite:*	Greff lag zu diesem Zeitpunkt schon jahrelang zu Bett, ... und nahm alles in die Hand, nur kein Buch (Schipporeit 1971) 'At this time, Greff had already been lying in bed for years, ... and she picked up everything, but never did she pick up a book'
(14)	*IN-adverb with Perfect:*	Ich habe mir schon immer ein Fahrrad gewünscht 'I've always wanted a bike'
(15)	**IN-adverb with Preterite:*	* Ich wünschte mir schon immer ein Fahrrad 'I've always wanted a bike'

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[4]   In Schipporeit (1971) there are numerous other examples for the usage of *seit acht Jahren*, *lang* and *schon lang*.

I have already demonstrated in section 1 why these differences in grammaticality cannot be explained within Reichenbachian theories. But within an *Extended-Now*-Theory, the data in (12)-(15) follow: adverbs like *schon immer* identify with the *Extended Now*. This is the reason why they cannot occur with the Preterite. Adverbs like *schon jahrelang* do not identify with the *Extended Now*, and thus may occur with the (Plu)Perfect as well as with the Preterite. Thus, the data in (12)-(15) force an analysis of the Perfect as an *Extended Now*.

3.2 Extended-Now-Theories

Stechow (1999) offers a developed *Extended-Now*-Theory. He proposes the following:

> Die Perfektauxiliare *sein/haben* liefern ein *Extended Now* im Sinne von McCoard (1978). Es handelt sich hier um ein Intervall, dessen rechte Grenze die Referenzzeit r bildet, und das nach links bis zu einer kontextuell festgelegten Grenze in die Vergangenheit reicht. r gehört mit zum Intervall. Wir nennen das Intervall XNP(r). XNP(r) bildet die Restriktion eines Quantifikationsadverbs, dessen Nukleus eine eventuell aspektualisierte Partizipialphrase bildet.
>
> ('The auxiliaries *sein/haben* deliver an *Extended Now* in the sense of McCoard (1978). To be precise, this is an interval whose right boundary is the reference time r. To the left, this interval stretches up to a contextually salient time. r is part of the named interval. We call this interval XNP(r). XNP(r) is the restriction of an adverb of quantification whose nucleus is a participial phrase (which may be aspectualized)').
>
> (Stechow 1999:88)

The reference time r is included in the *Extended-Now*-interval. This is motivated by data like:

(16) Ich habe immer hier gewohnt
   I have always here lived
   'I've always lived here'

In (16), the VP is intuitively understood as true at speech time. To my mind, there are two things to say against Stechow's argumentation.

First, (16) is stative, and stative sentences maximalize (Löbner 1988, Herweg 1990). With respect to the speech time inclusion in examples like (16), this effect arises because of an implicature. If the Perfect denotes an *Extended-Now*-interval which excludes reference time, this implicature follows. Maximalization means that the VP is true at a time which is larger than the asserted time.

The second objection to Stechow's argumentation is an empirical one. Sentences with *immer* do not have *Extended-Now*-readings. Schipporeit (1971) shows that *immer* is an EPF-adverb. Consider also the following data from a small corpus of mine:

(17) [Fontane, Effi Briest] »Ach, Luise, komme mir doch nicht mit solchen
    Geschichten. Effi ist unser Kind, aber seit dem 3. Oktober ist sie Baronin
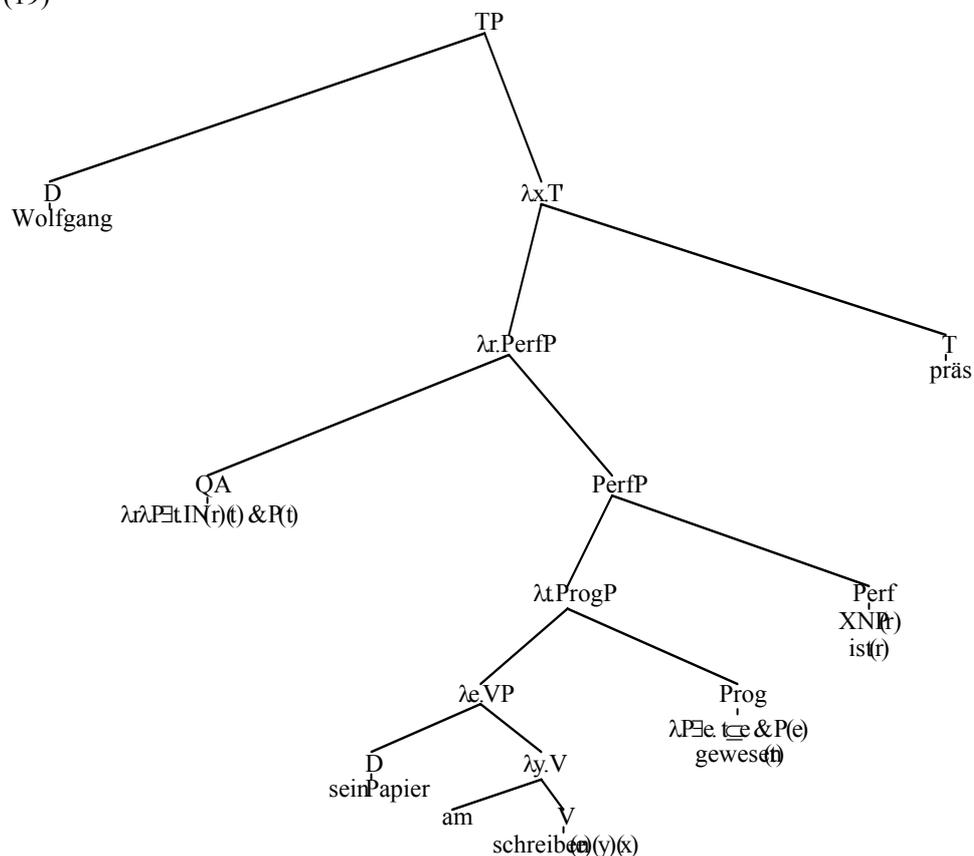
Innstetten. Und wenn ihr Mann, unser Herr Schwiegersohn, eine Hochzeitsreise machen and bei der Gelegenheit jede Galerie neu katalogisieren will, so kann ich ihn daran nicht hindern. Das ist eben das, was man sich verheiraten nennt.« »Also jetzt gibst du das zu. Mir gegenüber hast du's immer bestritten, immer bestritten, daß die Frau in einer Zwangslage sei.« »Ja, Luise, das hab ich. Aber wozu das jetzt. Das ist wirklich ein zu weites Feld.«
("'Oh, Luise, don't tell me such stories. Effi is our child, but since October 3rd she is the Baroness of Innstetten. And if her husband, our son-in-law, wants to catalogue every gallery on their honeymoon, I can do nothing about it. That is what marriage is about." "Now you admit it. You have always denied that the wife is in a bad position." "Yes, Luise, I have denied it. But why this discussion now. This is too big of a subject."')

(18)   [Mannheimer Morgen, Funnies] "Susi, warst du auf deiner Hochzeitsreise auch in Rom?" "Das weiß ich nicht; die Fahrkarten hat immer mein Mann besorgt."
("'Susi, did you visit Rome during your honeymoon?" "I don't know. It was always my husband who got the tickets"')

But let us see how Stechow's analysis works. Here is the tree and the calculated proposition for Stechow's example *Wolfgang ist sein Papier am schreiben gewesen* ('Wolfgang was writing his paper'):

(19)

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                                    TP
                  _____/  \
                 /                     λx.T
                D                      /  \
              Wolfgang               /      \
                                   /          \
                                 /              \
                              λr.PerfP            T
                              /   \              präs
                            /       \
                          QA         PerfP
                    λrλP∃t IN(r)(t) & P(t)   /  \
                                      /        \
                                  λt.ProgP      Perf
                                   /   \        XNP(r)
                                 /       \      ist(r)
                              λe.VP        Prog
                              /  \       λP∃e. t⊆e & P(e)
                            /      \     gewesen(t)
                           D        λy.V
                        seinPapier   /  \
                                   am    V
                                    schreiben(e)(y)(x)
```

(20) ∃t[IN(XNP(präs))(t) & ∃e[t⊆e & write(e)(his paper)(Wolfgang)(t)]]

I have two objections to this. First, *IN* is not correctly formulated. *Präs*, the right boundary of the *XNP(r)*-interval, is not excluded. The problem with this is that *Wolfgang ist sein Papier am schreiben gewesen* cannot mean that Wolfgang is writing at speech time. Thus, *präs* has to be an argument of *IN*. Here, *präs* is not an argument of *IN*. However, this mistake is easy to correct; the type of *IN* just has to be more complicated.

Second, there is an existential/universal-ambiguity occurring in certain adverbialized Perfect sentences. Cf.:

(21) Charly ist bis drei im   Garten gewesen
      Charly is until three in-the garden been
      'Charly was in the garden until three'

If 'three' is before S, then (21) is ambiguous between a universal and an existential reading. The universal reading (u-reading) can be paraphrased by the following: there is a time that ended at three, and John was in the garden *throughout* that time. The existential reading (e-reading) can be paraphrased by: there is a time that ended at three, and John was in the garden *at least once* during that time.[5]

Only in the case of the e-reading may (21) have continuations like *und zwar dreimal* ('actually, this was three times') or *und zwar um 1* ('actually, this was at one p.m.'). Both continuations are impossible with the u-reading. (21) can be disambiguated through intonation. If the adverb is stressed, the u-reading is achieved. If *Garten* is stressed, one gets the e-reading. However, if 'three' is after S, (21) only has the e-reading. Stressing the adverb does not lead to the u-reading, the sentence only gets strange.

Now, let us turn back to Stechow's analysis. The e-reading of *Wolfgang ist sein Papier am schreiben gewesen* is modeled via *QA*. But the e-reading of the u/e-ambiguous sentence in (22) can only be modeled in a very complicated way.

(22) Wolfgang ist   bis   gestern   gerannt
      Wolfgang has   until yesterday run
      'Wolfgang ran until yesterday'

For the u-reading of (22), the time *t* would have to be identified with the *bis-gestern*-interval. To achieve this, *t* would have to be existentially bound at a higher node. For the e-reading of (22), a second *QA* would be necessary which would make it possible for there to be a running-event within the *bis-gestern*-interval. It is very strange that the e-readings of *Wolfgang ist bis gestern gerannt* and *Wolfgang ist sein Papier am schreiben gewesen* have to be analyzed so differently in the semantics.

To summarize my comments on Stechow (1999): because of adverbs like *immer,* Stechow does not want to exclude the reference time from the *Extended-Now*-interval. But to model the e-readings, the reference time has to be excluded. This exclusion is done via *IN*. If adverbials like *bis gestern* are present, the LFs become very complicated.

If the empirical basis of Stechow (1999) is corrected, many things are much easier to formulate. I will try this in the next section.

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[5]   Instead of talking of *universal/existential* readings, Fabricius-Hansen (1986:215) uses the terms *durativ* (= universal) and *nicht-durativ* (= existential) readings. McCawley (1971:104) introduced the *universal/existential*-terminology.

4. My Theory of the German Perfect

4.1 The Extended-Now-Without-R-Theory

In my system, the Perfect also establishes an *Extended Now*. My *Extended Now* is a left-infinite interval $(-\infty, m) = \{n \mid n \leq m\}$, for points of time m,n. This indefinite meaning of tense is also assumed by other authors, e.g. Abusch (1996).

I assume the *Extended-Now-Without-R*-Theory of the Perfect, i.e., the *Extended-Now*-theory with the modification that the reference time (R) is excluded. To motivate the necessity of this modification, Schipporeit's IN-phrases *schon einmal*, *schon oft* and *schon immer* have to be examined because it is Schipporeit's claim that the reference time is included in the case of these adverbs. I start with *schon einmal*. Consider the following scenario:

(23)   Ich sehe vom Balkon auf die Strasse. In dem Moment fährt ein roter Mercedes vorbei. Ich sage zu Minka: 'Diesen roten Mercedes habe ich schon einmal gesehe'. Vor einem Jahr habe ich den Wagen tatsächlich gesehen.
('I am looking down from the balcony at the street. At that moment, a red Mercedes drives by. I say to Minka: "I've seen that red Mercedes before." A year ago, I really saw the car.')

If I included the reference time in the *scanning*-interval like Schipporeit does, I could not say *Diesen roten Mercedes habe ich schon einmal gesehen*. Instead, I would have to say *Diesen roten Mercedes habe ich schon zweimal gesehen* ('I've seen that red Mercedes twice before') because the now of the utterance is the second time of seeing. This shows that the reference time has to be excluded from the *schon-einmal*-interval. The following examples from COSMAS show the same:

(24)   [Mannheimer Morgen, 23.3.1989] Vor vier Jahren waren sie schon einmal auf dem Markt, jetzt schmücken sie erneut die Schaufensterauslagen: echte Entenküken aus China.
('They were already here four years ago. Now they are again decorating the shop windows: genuine ducklings from China.')
(25)   [Mannheimer Morgen, 9.6.1989] Auf dem Boden liegt ein verbeultes Fahrrad - unheilverkündend. Dieses Foto hat der MM schon einmal veröffentlicht. Dem Bildtext vom 30. Mai war zu entnehmen...
('On the ground there is a damaged bike - ominous. The MM has published this photo before. The caption on May 30[th] said....')

In (24) and (25), the *schon-einmal*-interval may not contain the reference time because of the meaning of *einmal* - the ducklings have been there before, and the photo has been published before, too.

 Now I turn to the adverb *schon oft*:

(26) Ich gebe sofort zu, daß ich Dich schon oft für ein blondes Dummchen gehalten habe. Jetzt sehe ich zum ersten mal, daß Du rote Haare hast, keine blonden. Dann bist Du wohl ein rotes Dummchen.
  ('I admit that I have often thought you were a dumb blonde. Now I see your hair is red, not blonde. Thus, you are a dumb redhead.')

At reference time, she is no longer a dumb blonde, but a dumb redhead. Consider also the following data from COSMAS:

(27) [Jung, *Die Magd vom Zellerhof*, Martin Keller Publishers] *Zuerst fährst du einmal hin und schaust dir das ganze Sach an, erkundigst dich, warum es zum Verkauf steht und fragst nach den genauen Bedingungen, und dann sehen wir weiter. - Wir? Wir, sagst?* Der Mann packte sie bei den Schultern und sah ihr freudestrahlend ins Gesicht. *Ja, willst es denn wirklich mit mir wagen, Madl?* Die Burgl nickte. *Daß du mich lieb hast, Schorschl, das hab ich schon lang gespürt, und darum hab ich auch schon oft darüber nachgedacht, wie ich innerlich zu dir steh.*
  ('*First go there and have a look at it. And ask why it is for sale, and ask for the conditions. Then we will see. - We? You are saying we?* The man took her by the shoulders and looked happily into her face. *Do you want to try it with me, my girl?* Burgl nodded. *I have known for a long time that you love me. That is the reason why I have often pondered over my relationship to you.*')

(28) [Goethe, Schriften zur Literatur, Hamburger Ausgabe, Vol.12, p.305] bei dieser Gelegenheit bekennen wir öffentlich, was wir schon oft im Stillen ausgesprochen...
  ('now, we admit publicly what we have often admitted only to ourselves')

In (27), *Burgl* knows at the reference time about her relationship to the man as she wants to try it with him. Thus, she is no longer pondering over the relationship. In (28), the *schon-oft*-interval, within which one admits something only to oneself, may not include the reference time because at reference time, one admits the same thing publicly.

 Finally, I turn to *schon immer*:

(29) Ich habe dieses Gefasel vom siebten Sinn schon immer für Phantasie gehalten. Um so erschreckender für mich, daß ich in diesem Moment einen Gegenbeweis in der Hand habe.
  ('I've always thought that this talking about the seventh sense is nonsense. So it is all the more horrifying to have the counterevidence in my hand now.')

At the very same moment that the counterevidence is there, the talking about the seventh sense can no longer be nonsense. Thus, the reference time must be excluded. Consider also the data from COSMAS:

(30)   [Mannheimer Morgen, 28.6.1989] Was wir schon immer geahnt haben, spätestens jetzt ist es Gewissheit: Das Lebenswerk dieses Künstlers, Mannheimer Schillerpreisträger des Jahres 1975, ist zu allererst ein Werk über den Tod und das Sterben.
('What we've always suspected is a certainty now. The lifework of this artist, winner of the Schiller Award in Mannheim in 1975, is first and foremost a work about death and dying.')

(31)   [Mannheimer Morgen, 8.9.1989] Tischtennisplatten, Spielecken und Sitzgruppen unter schattenspendenden Bäumen verteilen sich entlang des Walls. Rund ein Fünftel der Gesamtfläche wird von einem Wasser- und Matschbereich bestimmt. *Ein solches Projekt hat uns in Ludwigshafen schon immer gefehlt*, ist der Dezernent überzeugt.
('Table-tennis tables, playgrounds and benches under shady trees are spread along the embankment. About a fifth of the area consists of water and mud. *Such a project has always been needed in Ludwigshafen*, said the head of the department.')

In (30), the reference time must be excluded because what is a certainty need no longer be suspected. The same holds for (31): at the reference time the project is no longer needed, it has begun.

These corpus-data show that the quantified state of affairs no longer holds at S. Thus, S has to be excluded from the *Extended Now*. The meaning of the Perfect is as follows:

(32) Perf:=$\lambda P \lambda t \exists u[u \supset \subset t \ \& \ P(u)=1]$

Perf is of type $<<i,t>,<i,t>>$. The notation '$u \supset \subset t$' means 'the interval u abuts the interval t'.

However, intuitively, the exclusion of the reference time is problematic. According to Schipporeit, *einmal, oft, manchmal* and *immer* are EPF-adverbs (Schipporeit 1971:167ff.). But somehow, the reference time seems to be involved in the case of *immer, schon einmal, schon oft, schon manchmal* and *schon immer*. As for the question as to why this is so, I agree with Behaghel:

> Das Perfekt bezeichnet eine Handlung, die aus der Vergangenheit sich bis in die Gegenwart fortsetzt: [...]
> > *ich hab schon lang auf den Ruf des Herrn gewartet [...]*
> Damit ist nahe verwandt die Feststellung, daß etwas in der Vergangenheit öfters geschehen ist: [...]
> > *mich hat der ber und ouch der hirz erschrecket dicker denne der man [...]*

Die Erfahrung über Wiederholungen desselben Vorgangs gestattet aber auch einen Schluß auf die Gegenwart, das Perfektum gewinnt gnomischen Charakter: [...]

> *wer Gott dem Allerhöchsten traut, der hat auf keinen Sand gebaut [...]*

('The Perfect denotes an event which stretches from the past until speech time:

> *ich   hab   schon   lang   auf   den   Ruf   des   Herrn gewartet [...]*
> *I   have   already   long   for   the   call   of-the Lord   waited*
> *'for a long time now, I have been waiting for the call of the Lord'*

This is close to the conclusion that something happened often in the past:

> *mich hat   der   ber [...] erschrecket dicker   denne der   man*
> *me   has   the   bear [...] shocked   more-often than the   man*
> *'the bear has shocked me more often than the man'*

The experience of repetitions of one and the same event allows an inference about the Present, the Perfect gets a gnomish character:

> *wer   Gott [...] traut der   hat   auf   keinen   Sand gebaut*
> *who   God [...] trusts he   has   on   no   sand built*
> *'he who trusts in Almighty God has not built on sand')*

(Behaghel 1924:293)

Instead of speaking of a *gnomish character* of the Perfect one would say today that there is a strong conversational implicature.[6]

4.2   An analysis of the u/e-ambiguity

In section 3 I criticized Stechow's (1999) analysis of u/e-ambiguous Perfect sentences as being very complicated. The e-reading of the unambiguous sentence *Wolfgang ist sein Papier am schreiben gewesen* is modeled in Stechow (1999) via *QA*. For the e-reading of the u/e-ambiguous sentence in (22), repeated here as (33):
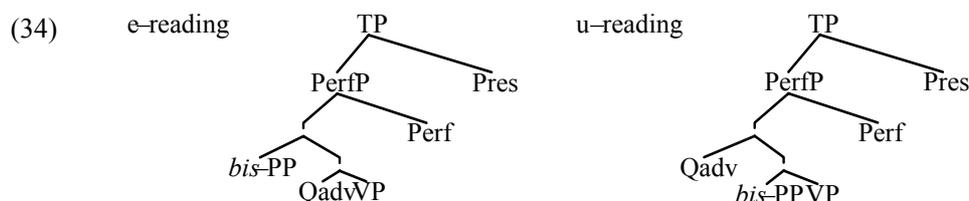
(33) Wolfgang ist   bis   gestern   gerannt
       Wolfgang has   until yesterday run
       'Wolfgang ran until yesterday'

a second *QA* would be necessary which would make it possible for there to be a running-event within the *bis-gestern*-interval. Thus, if adverbials like *bis gestern* are present, the LFs in Stechow (1999) become very complicated. Now I want to present my own analysis of the u/e-ambiguity.

I assume that every sentence has exactly one adverb of quantification (Qadv), the default being $\exists_\subseteq$ (*once*) (Bäuerle 1979, Stechow 1991).

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[6]   I only take over Behaghel's commentary on the gnomish character of the Perfect. However, I do not think that his example (*wer Gott dem Allerhöchsten...*) is convincing because it is a proverb with timeless validity.

It is my thesis that adverbs like *bis* have scope with respect to Qadv. The u/e-ambiguity thus receives a scope solution:

(34) e–reading   TP   u–reading   TP

        PerfP   Pres   PerfP   Pres

           Perf   Perf

     bis-PP   Qadv

        QadvVP   *bis*-PPVP

To tackle the ambiguity of (33), we need the rules in (35) (Pres is for reasons of simplicity taken to denote S):

(35) $\|\exists_{\subseteq}\|(p)(t)=1$ iff $\exists t'[t'\subseteq t$ & $p(t')=1]$
    $\|bis\|(z)(p)(t)=1$ iff $\exists t'[end(t')\subseteq z$ & $z\subseteq t$ & $p(t')=1]$

(36) e-reading of (49): *Pres(Perf(bis gestern($\exists_{\subseteq}$ (VP)))) = $\exists u[u \supset\subset S$ &*
              $\exists t[end(t)\subseteq yesterday$ & $yesterday\subseteq u$ & $\exists t'[t'\subseteq t$ &
              $VP(t')=1]]]$

(37) u-reading of (49): *Pres(Perf($\exists_{\subseteq}$ (bis gestern(VP)))) = $\exists u[u \supset\subset S$ &*
              $\exists t[t\subseteq u$ & $\exists t'[end(t')\subseteq yesterday$ & $yesterday\subseteq t$ &
              $VP(t')=1]]]$

Stechow has suggested that the Qadv $\exists_{\subseteq}$ may be omitted in the case of the u-reading (cf. also Paslawska & Stechow 1999). He argues that we also get a true u-reading without $\exists_{\subseteq}$. Furthermore, he argues that using $\exists_{\subseteq}$ only for the e-reading correctly models our intuition that the e-reading is hard to get. It is hard to get because we need something complicated, something which we do not need elsewhere, namely $\exists_{\subseteq}$.

 I do not agree that $\exists_{\subseteq}$ may be omitted in the case of the u-reading, because you can say something like

(38) Charly ist dreimal bis drei   gerannt
   Charly has three-times until three-o'clock run
   'Charly ran three times until three o'clock'

$\exists_{\subseteq}$ means 'once', but its place in the tree is the general slot for quantificational adverbs. (54) means that there are three different times '3 o'clock' up to each of which Charly ran. That is to say: you can count u-readings. It is obvious that the place of $\exists_{\subseteq}$ in the tree is the general slot for quantificational adverbs in the case of e-readings as well, as you can say something like

(39) Charly ist   bis   drei   dreimal   gerannt
      Charly has   until three-o'clock three-times   run
      'Charly ran three times until three o'clock'

Back to the trees in (34). Qadv and *bis*-PP interact, but there is no scope interaction with Perf. The complex u/e-ambiguity thus has nothing to do with the meaning of the Perfect. This is contrary to what is said in the literature on the topic. But if this is true, the complex ambiguity should also be found with other tenses. This is indeed the case (to my knowledge, this has not been noticed before):

(40) Future: Charly wird bis   morgen   rennen (u/e-ambiguous)
                Charly will until tomorrow run
                'Charly will run until tomorrow'
(41) Present: Charly renntbis   morgen (u/e-ambiguous)
                Charly runs until tomorrow
                'Charly runs until tomorrow'

The trees for (40) would look exactly like the trees in (34), the only difference being that there is no Perf and no PerfP for (40), but a Fut and a FutP instead. This in turn would mean that the Perfect and the Future are analyzed on a par, which is in accordance with Stechow (1999). We need a Pres above Perf and above Fut for the embedded cases. In the embedded cases, Perf and Fut are deleted and Pres remains.

5. Summary

In sections 1 and 2 I presented the most common theories on the German Perfect, the anteriority-theory and the *Extended-Now*-Theory.

The anteriority-theory could be refuted by the data (2)-(3) and (7)-(8) (resp. (12)-(15)). It could be demonstrated that these data cannot be explained within the anteriority-theory but receive a straightforward explanation within the *Extended-Now*-Theory. In other words, the data (25)-(28) force an analysis of the German Perfect as an *Extended Now*.

Stechow (1999) offers an expanded *Extended-Now*-theory. However, Stechow (1999) does not convince me with his analysis of e/u-ambiguous data.

My theory of the German Perfect was explicated in section 4. I call my theory the *Extended-Now-Without-R*-Theory because the reference time (R) is excluded from the *Extended-Now*-interval. This is contrary to what Stechow (1999) assumes. My theory was empirically motivated in section 4.1. In section 4.2. I presented my analysis of e/u-ambiguous data.

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