

The tense systems of English, Danish and German

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1. Introduction: Verb forms

ENGLISH		DANISH	
REGULAR	IRREGULAR	REGULAR	IRREGULAR
= WEAK	≈ STRONG	= WEAK	≈ STRONG
FINITE:			
(1)			
a.	paint	write	PRESENT TENSE, 1 ST PERS. SING.
b.	paints	writes	PRESENT TENSE, 3 RD PERS SING.
c.	painted	wrote	PAST TENSE
			maler
			skriver
			malede
			skrev
NON-FINITE:			
d.	paint	write	INFINITIVE
e.	painting	writing	PRESENT PARTICIPLE
f.	painted	written	PAST PARTICIPLE
g.	paint!	write!	IMPERATIVE
			male
			skrive
			malende
			skrivende
			malet
			skrevet
			mal!
			skriv!

The form and the combination of the different verbs in the clause is what determines both **tense** (e.g. past, present, future) and **aspect** (e.g. perfect, progressive). Both will be discussed here.

In one sense of the word, **tense** covers only the distinction between present and past (and perhaps also the one between future and non-future). The distinction between perfect and non-perfect and the one between progressive and non-progressive both belong under **aspect** (i.e. how a certain event is seen). In what follows, however, "tense" refers to a particular combination of tense and aspect choices (as in e.g. Hurford 1994:239). In this way, not only is **SIMPLE PRESENT** like *works* a tense, but so are also e.g. **PAST PERFECT** like *had worked* or **PAST FUTURE PERFECT** like *would have worked*.

2. Tense systems in general

2.1 Six tenses

A traditional analysis of the tense system of e.g. Danish, English and German has six tense forms:

(2)

Danish e.g. Falk & Torp (1900:152-163)		English e.g. Hornstein (1990:15)		German e.g. Ballweg (1997: 1688), Eisenberg (1999:110), Flämig (1981:510), Gelhaus (1998:155)	
Præteritum	<i>gav</i>	Past	<i>gave</i>	Präteritum	<i>gab</i>
Pluskvam-perfektum	<i>havde givet</i>	Past perfect	<i>had given</i>	Plusquam-perfekt	<i>gegeben hatte</i>
Præsens	<i>giver</i>	Present	<i>gives</i>	Præsens	<i>gibt</i>
Perfektum	<i>har givet</i>	Present perfect	<i>has given</i>	Perfekt	<i>gegeben hat</i>
Futurum	<i>vil give</i>	Future	<i>will give</i>	Futur I	<i>geben wird</i>
Futurum perfektum	<i>vil have givet</i>	Future perfect	<i>will have given</i>	Futur II	<i>gegeben haben wird</i>

One problem with (2) is that although it includes the tense forms *gives* and *has given*, as well as their past tense versions *gave* and *had given*, it does not include the past tense versions of the last two tenses *will give* and *will have given* (i.e. it excludes *would give* and *would have given*).

2.2 Nine tenses

(3)

Danish e.g. Matzen (1893:278-279)		English e.g. Reichenbach (1947:297)		German e.g. Bauer (1830:53, as cited in Thieroff 1992:48)	
Førfortid	<i>havde givet</i>	Anterior past	<i>had given</i>	Präteritum der Vergangenheit	<i>gegeben hatte</i>
Fortid	<i>gav</i>	Simple past	<i>gave</i>	Præsens der Vergangenheit	<i>gab</i>
Efterfortid	<i>ville give</i>	Posterior past	<i>would give</i>	Futurum der Vergangenheit	<i>geben wollte</i>
Førnutid	<i>har givet</i>	Anterior present	<i>has given</i>	Präteritum der Gegenwart	<i>hat gegeben</i>
Nutid	<i>giver</i>	Simple present	<i>gives</i>	Præsens der Gegenwart	<i>gibt</i>
Efternutid	<i>vil give</i>	Posterior present	<i>will give</i>	Futurum der Gegenwart	<i>geben wird/will</i>
Førfremtid	<i>vil have givet</i>	Anterior future	<i>will have given</i>	Präteritum der Zukunft	<i>gegeben haben wird</i>
Fremtid	<i>vil give</i>	Simple future	<i>will give</i>	Præsens der Zukunft	<i>geben wird</i>
Efterfremtid	<i>vil give</i>	Posterior future	<i>will be going to give</i>	Futurum der Zukunft	<i>geben werden will</i>

Matzen (1893) uses Madvig's tense system for Latin, first published in 1841 (cf. Madvig 1895:128).

There are at least four problems with the nine tense system in (3):

- When arguing for nine different tenses, it is a problem that the same forms occur under POSTERIOR PRESENT as under (SIMPLE) FUTURE: Reichenbach has *will give* under both POSTERIOR PRESENT and under SIMPLE FUTURE, Bauer has *geben wird* both under FUTURUM DER GEGENWART and under PRÄSENS DER ZUKUNFT, and finally, Matzen has *vil give* in three different places: under EFTERNUTID, under FREMTID og under EFTERFREMTID.
- Reichenbach's POSTERIOR FUTURE, *will be going to give*, employs very different morphological means than the other forms in the system. If *will be going to give* is to be part of the system, then what about *is going to give*, *has been going to give* etc. ?
- Bauer uses both forms of *wollen* and of *werden* to indicate FUTURE. Using *wollen* is problematic, as it presupposes a subject which is an AGENT, which is not the case with the other tense forms (cf. e.g. ... *dass es regnen wird* '... that it will rain' and ... *dass es geregnet hatte* '... that it had rained', as opposed to *... *dass es regnen wollte*, which can only mean '... that it was intending to rain'). This is even more problematic in FUTURUM DER ZUKUNFT *... *dass es regnen werden will*, which can only mean something like '... that it intends to be going to rain' (= Danish '... at det har til hensigt at ville regne').
- All three analyses contain *vil have givet*, *will have given* and *gegeben haben wird*, but not their past versions *ville have givet*, *would have given* and *gegeben haben würde*.

Some analyses even have **five or seven tenses**:

- Bøgh & Hovgaard (1987:22) has five tenses: PRESENT, PAST, PRESENT PERFECT, PAST PERFECT, and FUTURE, i.e. the same as in (2) except FUTURE PERFECT.
- Bock (2009:9) has seven tenses: PAST FUTURE, PAST PERFECT, PAST, PRESENT PERFECT, PRESENT, FUTURE PERFECT, and FUTURE, i.e. the same as in (4) except PAST FUTURE PERFECT.

2.3 Eight tenses

In Knudsen (1880: 68-69), Mikkelsen (1911:431-443), Jørgensen (1964), Weinrich (1964), Vikner (1985), Thieroff (1992:59), Kamp & Reyle (1993:601) and many others, we find the eight tense system to be defended below.

(4)

	Danish	English	German
Present	<i>giver</i>	<i>gives</i>	<i>gibt</i>
Past	<i>gav</i>	<i>gave</i>	<i>gab</i>
Present perfect	<i>har givet</i>	<i>has given</i>	<i>gegeben hat</i>
Past perfect	<i>havde givet</i>	<i>had given</i>	<i>gegeben hatte</i>
Future	<i>vil give</i>	<i>will give</i>	<i>geben wird</i>
Past future	<i>ville give</i>	<i>would give</i>	<i>geben würde</i>
Future perfect	<i>vil have givet</i>	<i>will have given</i>	<i>gegeben haben wird</i>
Past future perfect	<i>ville have givet</i>	<i>would have given</i>	<i>gegeben haben würde</i>

As opposed to the nine tense system in (3) and to some extent also to the six tense system in (2), the eight tense system in (4) has a solid morphological basis:

- There are four **past tenses** (PAST, PAST PERFECT, PAST FUTURE, PAST FUTURE PERFECT). Here the finite verb is a past tense form.
- There are four **non-past tenses** (i.e. present tenses) (PRESENT, PRESENT PERFECT, FUTURE, FUTURE PERFECT). Here the finite verb is not a past tense form (but a present tense form).

- (6) a. There are four **future tenses**. Here the finite verb is a form of *ville/will/werden*, and the form immediately below it is an infinitive.
 b. There are four **non-future tenses**. Here the finite verb is not a form of *ville/will/werden*.
- (7) a. There are four **perfect tenses**. Here the lowest verb is a past participle, and the verb immediately above below it is a form of *have~være/have/haben~sein*.
 b. There are four **non-perfect tenses**. Here the lowest verb is not a past participle.

This analysis, i.e. the eight tense system in (4), actually introduces three binary features:

(8)

	Danish	English	± PAST (5)	± FUT (6)	± PERF (7)
Present	<i>giver</i>	<i>gives</i>	–	–	–
Past	<i>gav</i>	<i>gave</i>	+	–	–
Present perfect	<i>har givet</i>	<i>has given</i>	–	–	+
Past perfect	<i>havde givet</i>	<i>had given</i>	+	–	+
Future	<i>vil give</i>	<i>will give</i>	–	+	–
Past future	<i>ville give</i>	<i>would give</i>	+	+	–
Future perfect	<i>vil have givet</i>	<i>will have given</i>	–	+	+
Past future perfect	<i>ville have givet</i>	<i>would have given</i>	+	+	+

Also outside the Germanic languages, there are similar regularities (Albanian from Hetzer 1978, Turkish from Kornfilt 1997):

(9)

	English	French	Rumanian	Albanian	Turkish
Present	<i>gives</i>	<i>donne</i>	<i>dă</i>	<i>jep</i>	<i>verir</i>
Past	<i>gave</i>	<i>donnait</i>	<i>dădea</i>	<i>jepte</i>	<i>verir-ti</i>
Present perfect	<i>has given</i>	<i>a donné</i>	<i>a dat</i>	<i>ka dhënë</i>	<i>verir-miş</i>
Past perfect	<i>had given</i>	<i>avait donné</i>	<i>dăduse</i>	<i>kishte dhënë</i>	<i>verir-miş-ti</i>
Future	<i>will give</i>	<i>donnera</i>	<i>va da</i>	<i>do të japë</i>	<i>verir-ecek</i>
Past future	<i>would give</i>	<i>donnerait</i>	<i>ar da</i>	<i>do të jepte</i>	<i>verir-ecek-ti</i>
Future perfect	<i>will have given</i>	<i>aura donné</i>	<i>va fi dat</i>	<i>do të ketë dhënë</i>	<i>verir-miş ol-acak</i>
Past future perfect	<i>would have given</i>	<i>aurait donné</i>	<i>ar fi dat</i>	<i>do të kishte dhënë</i>	<i>verir-miş ol-acak-ti</i>

There are also languages which leave one of the three possible differences in (5) - (7) unexpressed. According to Bull (1960:30), e.g. Yoruba does not distinguish between [±PAST]:

(10)

	English	Yoruba
Present	<i>gives</i>	<i>n-korin</i>
Past	<i>gave</i>	
Present perfect	<i>has given</i>	<i>ti korin</i>
Past perfect	<i>had given</i>	
Future	<i>will give</i>	<i>yio korin</i>
Past future	<i>would give</i>	
Future perfect	<i>will have given</i>	<i>iba-ti korin</i>
Past future perfect	<i>would have given</i>	

According to Karlsson (2000) and to Weber (1948), neither Finnish nor Zürich German distinguish between [±FUT]:

(11)

	English	Finnish	Zürich German
Present	<i>gives</i>	<i>antaa</i>	<i>git</i>
Future	<i>will give</i>		
Past	<i>gave</i>	<i>antoi</i>	<i>ggëë hät</i>
Past future	<i>would give</i>		
Present perfect	<i>has given</i>	<i>on antanut</i>	<i>ggëë hät</i>
Future perfect	<i>will have given</i>		
Past perfect	<i>had given</i>	<i>oli antanut</i>	<i>ggëë ghaa hät</i>
Past future perfect	<i>would have given</i>		

This renders Zürich German (and other Swiss German variants) particularly complex, as it furthermore expresses [\pm PAST] and [\pm PERF] by the same morphological means: a past participle and a form of the auxiliaries *haa* 'have' or *sy* 'be'. This is called the *Präteritumsschwund*, 'loss of simple past tense forms': All simple past forms, e.g. *gab*, 'gave', are lost in Southern German dialects and Yiddish around 1500 (Lindgren 1957:111, König 1985:163, Eggers 1998:289-291), and in Afrikaans 1750-1800 (Ponelis 1993). The past perfect, which is both [$+$ PAST] and [$+$ PERF] is therefore realised as "given had has", which is often referred to as 'double perfect'.

Cf. also the "passé surcomposé" in French, e.g. *a eu fini* "has had finished", which only has a limited use (Pedersen & al. 1980, 290, 355-356). The Danish use of the double perfect is rather marginal and limited to examples with *ringe* 'call/telephone', e.g. *Har du haft ringet?*, 'Have you had called?'.

Double perfects are also found in Yiddish (Weissberg 1988 and Lockwood 1995), which however still makes all three distinctions, [$+$ PAST], [$+$ FUT] and [$+$ PERF]:

(12)

	English	Yiddish
Present	<i>gives</i>	<i>git</i>
Past	<i>gave</i>	<i>hot gegeben</i>
Present perfect	<i>has given</i>	<i>hot gegeben</i>
Past perfect	<i>had given</i>	<i>hot gehat gegeben</i>
Future	<i>will give</i>	<i>vet gebn</i>
Past future	<i>would give</i>	<i>volt gegeben</i>
Future perfect	<i>will have given</i>	<i>vet hobn gegeben</i>
Past future perfect	<i>would have given</i>	<i>volt gehat gegeben</i>

Finally, the Hawaiian tense system (Bull 1960:30) expresses only one distinction, [$+$ PERF]:

(13)

	English	Hawaiian
Present	<i>gives</i>	<i>himeni ana</i>
Future	<i>will give</i>	
Past	<i>gave</i>	
Past future	<i>would give</i>	
Present perfect	<i>has given</i>	<i>ua himeni</i>
Future perfect	<i>will have given</i>	
Past perfect	<i>had given</i>	
Past future perfect	<i>would have given</i>	

We have thus seen that the rather different tense systems across the various languages may be accounted for relatively easily on the basis of the eight tense system.

3. The meaning of the English tenses

Present tense and **past tense** (= simple present and simple past) only employ a **finite** form of the lexical verb. All the other tenses are compound tenses, as they employ a non-finite form of the main verb plus one or more auxiliary verbs (the first of which is finite).

(14)			\pm PAST	\pm FUTURE	\pm PERFECT	\pm PROGR
a.	writes	PRESENT	-	-	-	-
b.	has written	PRESENT PERFECT	-	-	+	-
c.	will write	FUTURE	-	+	-	-
d.	will have written	FUTURE PERFECT	-	+	+	-
e.	wrote	PAST	+	-	-	-
f.	had written	PAST PERFECT	+	-	+	-
g.	would write	PAST FUTURE	+	+	-	-
h.	would have written	PAST FUTURE PERFECT	+	+	+	-
			(15)	(16)	(17)	(18)
				+ \rightarrow <i>will</i>	+ \rightarrow <i>have</i>	+ \rightarrow <i>be</i>

This is the eight tense system from (4) above, resulting from the free combination of the three features \pm PAST, \pm FUTURE and \pm PERFECT ($2 \times 2 \times 2 = 8$). This system of eight tenses also makes it possible to state the morphological properties of the tenses, cf. also the bottom line of (14):

- (15) a. The first element of a + PAST tense ends in *-ed* (or it has an irregular past tense form).
 b. The first element of a - PAST tense ends in *-s* or zero.
- (16) a. A + FUTURE tense involves a form of *will* (or *shall*) followed by an infinitive.
 b. A - FUTURE tense does **not** involve a form of *will* (or *shall*) followed by an infinitive.
- (17) a. A + PERFECT tense involves a form of *have* followed by a past participle.
 b. A - PERFECT tense does **not** involve a form of *have* followed by a past participle.

The generalisations in (15)-(17) are very similar to the ones valid for e.g. Danish or German.

There is, however, a further set of generalisations which are unique to English, concerning the so-called **progressive** tenses:

- (18) a. A + PROGRESSIVE tense involves a form of *be* followed by a present participle.
 b. A - PROGRESSIVE tense does **not** involve a form of *be* followed by a present participle.

English thus has the **eight non-progressive tenses** given in (14) as well as **eight progressive ones**:

(19)			\pm PAST	\pm FUT	\pm PERF	\pm PROG
a.	is writing	PRESENT PROGRESSIVE	-	-	-	+
b.	has been writing	PRESENT PERFECT PROGRESSIVE	-	-	+	+
c.	will be writing	FUTURE PROGRESSIVE	-	+	-	+
d.	will have been writing	FUTURE PERFECT PROGRESSIVE	-	+	+	+
e.	was writing	PAST PROGRESSIVE	+	-	-	+
f.	had been writing	PAST PERFECT PROGRESSIVE	+	-	+	+
g.	would be writing	PAST FUTURE PROGRESSIVE	+	+	-	+
h.	would have been writing	PAST FUTURE PERFECT PROGRESSIVE	+	+	+	+
			(15)	(16)	(17)	(18)

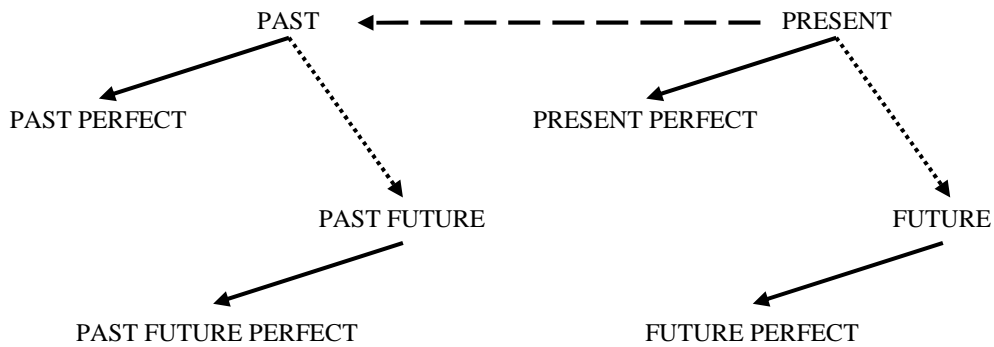
3.1 Overview: The meaning of the different tenses

Time is found outside language, whereas **tense** is found only inside language. Another difference is that **time** is divided into three parts (e.g. *before*, *now*, and *after*), whereas **tense** is divided in a different way, in a series of binary divisions, cf. (5) - (7) and (15)-(18) above.

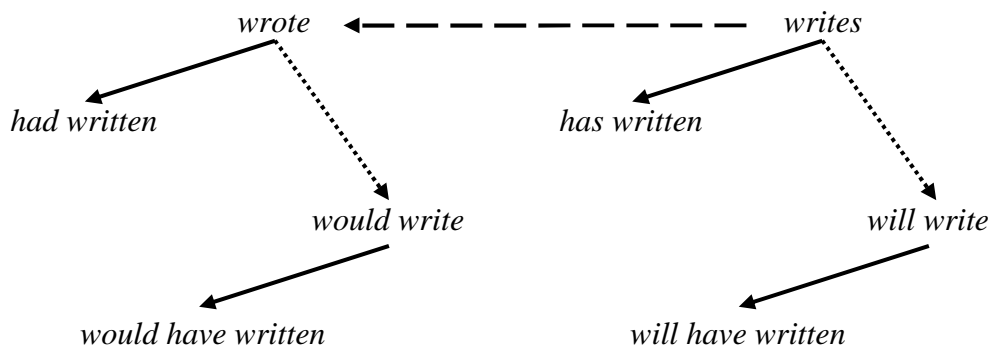
(20) **Time:**



(21) **Tenses:**



(22) **Examples:**



3.2 The meaning of PRESENT, PAST, PRESENT PERFECT and PAST PERFECT

In *Elements of Symbolic Logic*, Hans Reichenbach (1947:287-298) suggested an analysis of the meaning of English tenses by means of three points in time:

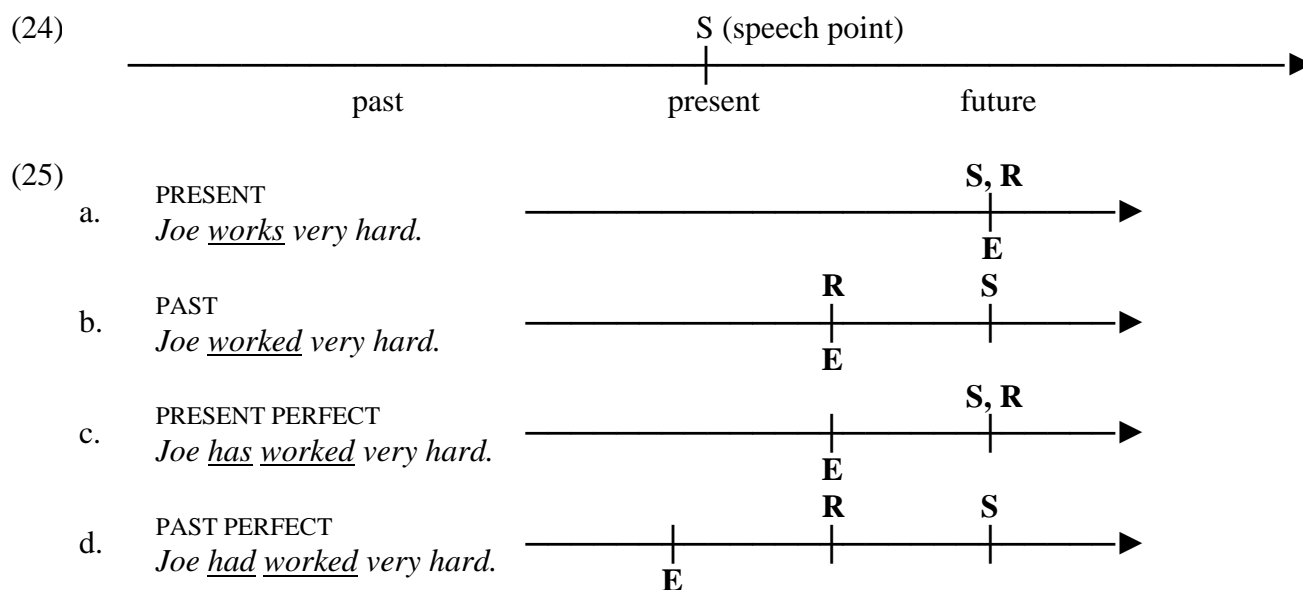
- (23) a. **S = Speech point** (The point in time when the utterance is made.)
 b. **R = Reference point** (A point in time from which the event is seen.)
 c. **E = Event point** (The point in time when the event takes place.)

This analysis has been very influential, cf. e.g. Steedman (1997:905): "*There is one early modern piece of insightful descriptive work which most theories build upon, and which those who ignore seem doomed to reconstruct. This work is contained in two short [...] sections in Reichenbach (1947).*"

The reference point may be further specified by means of so-called frame adverbials, e.g. *today, two hours ago, five minutes later, in November 2002.*

The meaning of the four non-future/non-progressive tenses (PRESENT, SIMPLE PAST, PRESENT PERFECT and PAST PERFECT) can be illustrated by fixing the three points, S, R and E, on a time line, cf. (20).

In **SIMPLE PRESENT**, all three points coincide. In **SIMPLE PAST**, **PRESENT PERFECT** and **PAST PERFECT**, the event precedes the utterance.



In the **SIMPLE PRESENT**, the event takes place at the same time as the utterance:

- (26) a. Copenhagen is the capital of Denmark. PRESENT
 b. Joe lives in Denmark. PRESENT
 c. Fred speaks both English and French. PRESENT

SIMPLE PRESENT may also sometimes be used with future or with past meaning ("historical present"):

- (27) a. My train leaves at 7 PM. PRESENT WITH FUTURE MEANING
 b. We were right in the middle of a discussion,
 and suddenly he gets up and leaves. PRESENT WITH PAST MEANING

Both in the **SIMPLE PAST** and in the **PRESENT PERFECT**, the event precedes the utterance. The difference is whether the event is seen from a point (the so-called reference point) which coincides with the event (SIMPLE PAST) or from a point that coincides with the utterance (PRESENT PERFECT).

- (28) a. In 1920, Berlin was the capital of Germany. PAST
 b. Joe went to France last year. PAST
 c. Fred spoke French in the interview. PAST
- (29) a. Paris has always been the capital of France. PRESENT PERFECT
 b. Joe has gone to France. PRESENT PERFECT
 c. Fred has spoken French since he was young. PRESENT PERFECT

The difference between SIMPLE PAST and PRESENT PERFECT is that PRESENT PERFECT signals "**past time with current relevance**", so that the resulting state has to be relevant in the present (i.e. PRESENT PERFECT has its reference point in the present):

- (30) a. Where did you put the books? PAST
 b. Where have you put the books? PRESENT PERFECT

If you are looking for the books, both are possible, but if you already know where the books are now and you simply want to know why they are covered in bread crumbs, only (30)a is possible. Cf. also that with a past time adverbial, only the SIMPLE PAST is possible, PRESENT PERFECT only allows time adverbials that include the present moment in time:

- (31) a. I bought the book yesterday. PAST
 b. * I have bought the book yesterday. PRESENT PERFECT

Cf. furthermore the so-called existential presupposition:

- (32) a. Elvis Presley never gave a concert in Århus. PAST
 b. * Elvis Presley has never given a concert in Århus. PRESENT PERFECT

The idea that the difference between simple past and present perfect is related to the position of the reference point is found in Reichenbach (1947:289), and it has often been employed, e.g. in Comrie (1985:32), Hamann (1987), Ehrlich & Vater (1989:121), Hornstein (1990: 15, 109) and Eisenberg (1999:111).

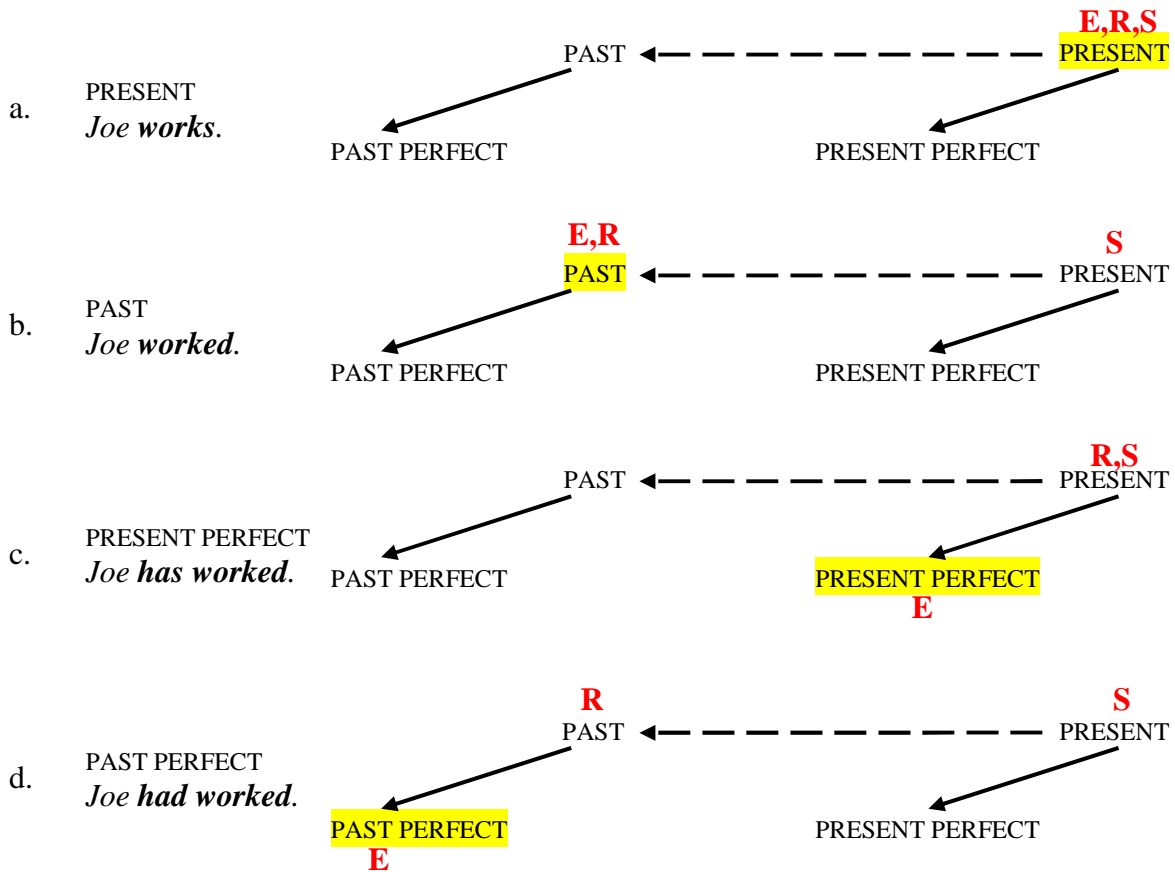
In the **PAST PERFECT**, the event also precedes the utterance. The difference from the SIMPLE PAST and the PRESENT PERFECT is that the event is seen from a point that coincides **neither** with the event, **nor** with the utterance. The reference point at the same time follows the event and precedes the utterance:

- (33) a. In 1814 British forces attacked Washington D.C.,
 which had become the U.S. capital fourteen years earlier. PAST PERFECT
 b. When Fred arrived, Joe had gone to France. PAST PERFECT
 c. Fred had not yet spoken to any journalists when Joe found him. PAST PERFECT

Summarising this section, using the picture in (21)/(22) to give the representations in (34):

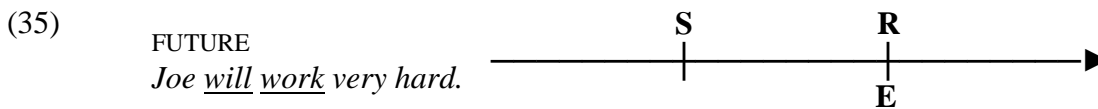
- **SIMPLE PRESENT:** the event takes place at the same time as the utterance
- **SIMPLE PAST:** the event takes place before the utterance, but it is seen from the event point
- **PRESENT PERFECT:** the event takes place before the utterance, but it is seen from the speech point
- **PAST PERFECT:** the event takes place before the utterance, and it is seen from a point after the event but before the utterance

(34)



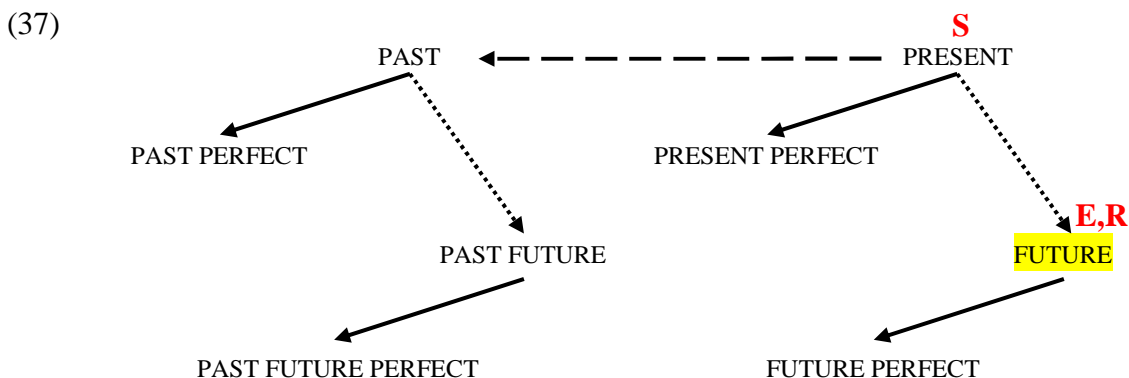
3.3 The meaning of SIMPLE FUTURE

Also the meaning of the **FUTURE** (or **SIMPLE FUTURE**) can be illustrated by means of a time line and the three points. Here the event follows the utterance. It is a mirror image of the SIMPLE PAST, as the event is seen from a point that coincides with it (e.g. *in 2020* or *next year*).



- (36) a. In 2020, Berlin will still be the capital of Germany. FUTURE
 b. Joe will go to Britain next year. FUTURE
 c. Fred will speak English at the conference. FUTURE

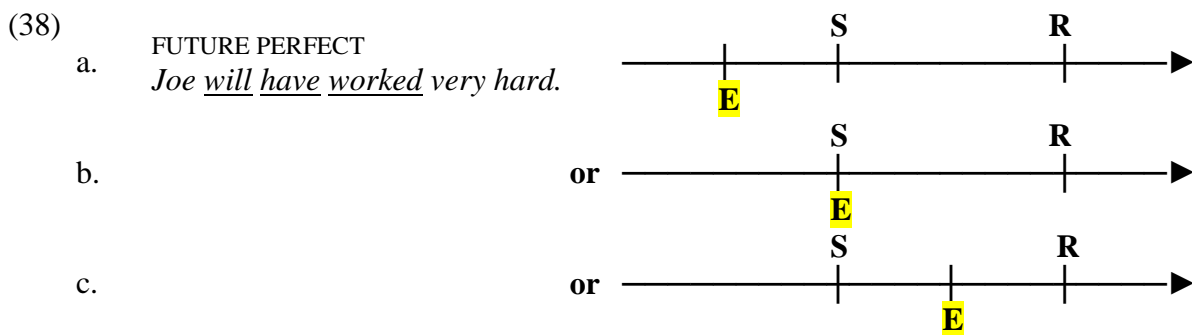
In terms of the picture in (21)/(22), we only move in one direction (from PRESENT to FUTURE):



3.4 The meaning of FUTURE PERFECT and PAST FUTURE

The other three future tenses (FUTURE PERFECT, PAST FUTURE, and PAST FUTURE PERFECT) are more complex, as they necessitate more than one time line. In terms of the above picture, cf. also (21)/(22), they involve movements in both directions relative to the speech point. They will be discussed in this and the following section.

When it comes to describing the meaning, **FUTURE PERFECT** is more complex than the five tenses considered so far (i.e. SIMPLE PRESENT, SIMPLE PAST, PRESENT PERFECT, PAST PERFECT, and SIMPLE FUTURE). FUTURE PERFECT would seem to have three different meanings (Reichenbach 1947:297), as the event can precede or overlap with or even follow the utterance:



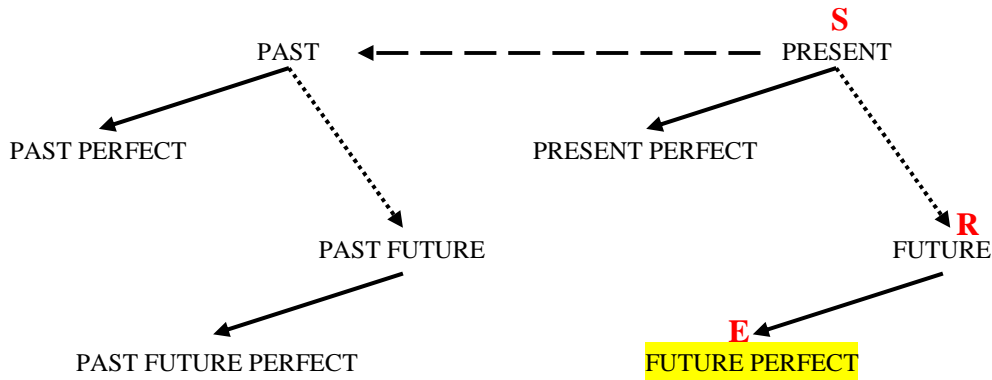
- (39) a. In 2020, Berlin will have been the capital of Germany for over 25 years. FUTURE PERFECT
 b. Joe will have left for Britain by the time you get there. FUTURE PERFECT
 c. At the end of conference, Fred will have spoken English for a week non-stop. FUTURE PERFECT

- (40) a. En. By April 1992 we will have lost 200 police personnel on the beat. (BNC, spoken, 1992)
 b. Da. 40% af alle de piger, som i dag er 14 år, vil have født 40% of all the girls who to-day are 14 years will have given-birth mindst én gang, før de fylder 20 år. (Korpus DK, newspaper, 1989)
 at least one time before they turn 20 years.
 c. Ge. Danach, so hofft der gelernte Chirurg, wird sich manches geglättet haben Afterwards so hopes the educated surgeon will REFL many things evened-out have (= 'Afterwards, the surgeon hopes, many things will have smoothed themselves out') (IDS-Korpus, newspaper, 1989)

What the different meanings in (39) a-c and (40)a-c have in common is that the event precedes the reference point and that the utterance also precedes the reference point. FUTURE PERFECT simply does not say anything directly about the relative position in time of the event and the utterance. By analysing it in this way, we avoid that FUTURE PERFECT has three different analyses as in (39). This was suggested independently by Comrie (1981:26, 1985:70) and Vikner (1985:89), and later taken up by e.g. Hornstein (1990:110), Klein (1994:129), Thieroff (1992:207) and Giorgi & Pianesi (1997:28).

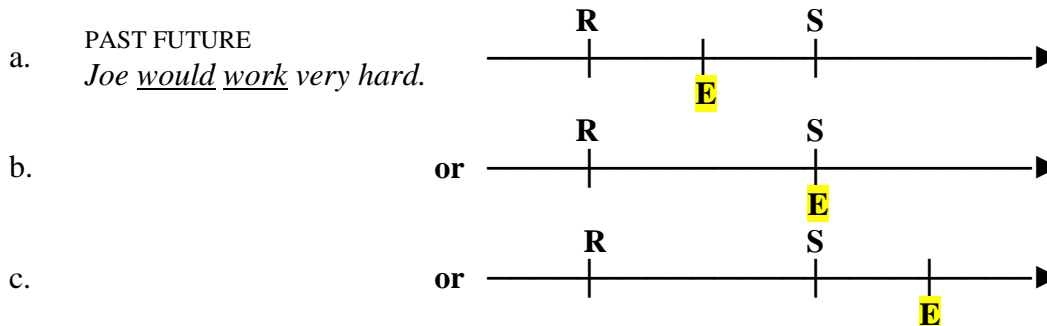
In terms of the picture in (21)/(22), first we move in one direction (from PRESENT to FUTURE, and then in the opposite direction (from FUTURE to FUTURE PERFECT).

(41)



An exactly parallel problem concerns **PAST FUTURE**, which also would seem to have three different meanings, as the event can precede, overlap with or even follow the utterance:

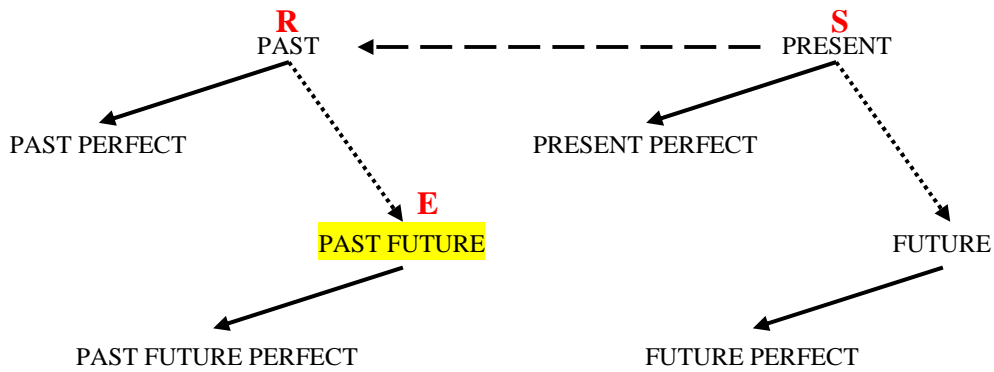
(42)



- (43) a. Noone would have believed then that Berlin would ever become the capital of Germany again. PAST FUTURE
 b. I thought that Joe would only leave for Britain PAST FUTURE
 if he absolutely had to.
 c. Fred said that he would speak English PAST FUTURE
 whenever it was necessary.
- (44) a. En. Emily thought she would never arrive at her destination. (BNC, fiction, 1992)
 b. Da. Ron Redmond sagde, at det første amerikanske fly ville ankomme til byen
Ron Redmond said that the first American plan would arrive to town-the
lørdag middag fra Frankfurt. (Korpus DK, newspaper, 1992)
Saturday noon from Frankfurt.
 c. Ge. Ihr Brief, den sie so eilig abschicken wollte, würde niemals ankommen.
Her letter which she so quickly send-off wanted would never arrive.
 (IDS-Korpus, newspaper, 1999)

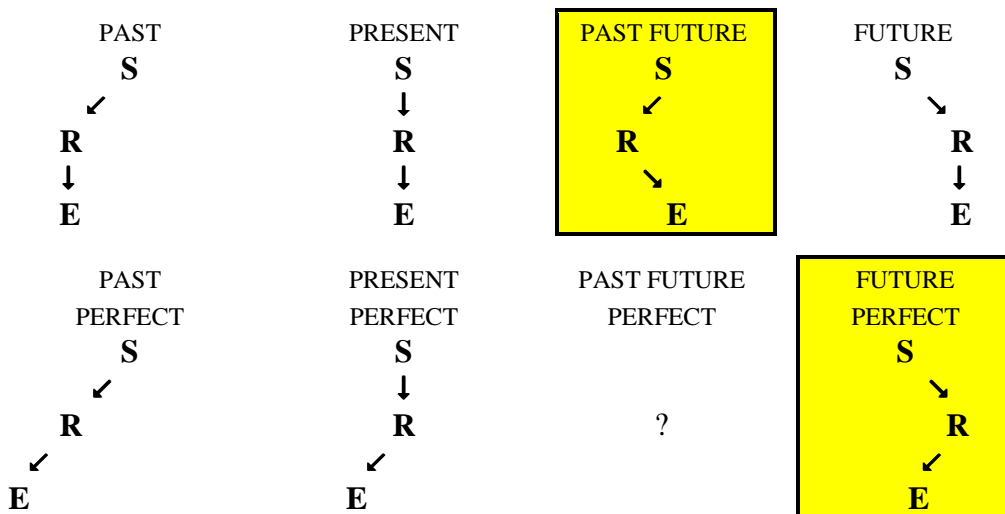
What the different meanings in (43)a-c and (44)a-c have in common is that the event follows the reference point and that the utterance also follows the reference point. PAST FUTURE simply does not directly say anything about the relative position in time of the event and the utterance. In terms of the picture in (21)/(22), first we move in one direction (from PRESENT to PAST, and then in the opposite direction (from PAST to PAST FUTURE).

(45)



For FUTURE PERFECT and PAST FUTURE, we therefore need an analysis where event and utterance are only indirectly related. This can be illustrated as in the two framed boxes in (46), but in order to be consistent we would then have to allow similar illustrations of the other five tenses discussed so far.

(46)



3.5 The meaning of PAST FUTURE PERFECT

However, even the extra measures suggested above, i.e. the placing of the utterance and the event on different time lines that are not directly related, will not suffice for the most complicated of the tenses, PAST FUTURE PERFECT, which involves no less two points of reference:

- (47) a. She would never have believed back then that Berlin would have become the capital of Germany long before she retired. PAST FUTURE PERFECT
- b. Joe promised that he would have read the book by the end of the holidays. PAST FUTURE PERFECT
- c. A report was published that predicted that the price of mobile phones would have fallen to £ 1000 five years later. PAST FUTURE PERFECT

- (48) a. En. The two assistants swore that nothing would have changed by the time he returned.
(BNC, fiction, 1992)
- b. Da. Han havde håbet på, at juleferien ville have ændret bare en smule
He had hoped on that Xmas-holiday-the would have changed just a bit
ved hans status på holdet.
at his status on team-the. (Korpus DK, fiction, 1984)
- c. Ge. Vor fünf Jahren konnten wir nicht voraussehen, daß die Welt 1993 sich
Ago five years could we not predict that the world 1993 itself
so nachhaltig gewandelt haben würde
so extremely changed have would. (IDS-Korpus, periodical, 1993)

Consider (47)b: One R, the time of the promise, precedes both S and the second R, *the end of the holidays*. This means that this second R, *the end of the holidays*, cannot be directly placed with respect to S (i.e. the holidays may already have ended, they may be ending today, or they may end later).

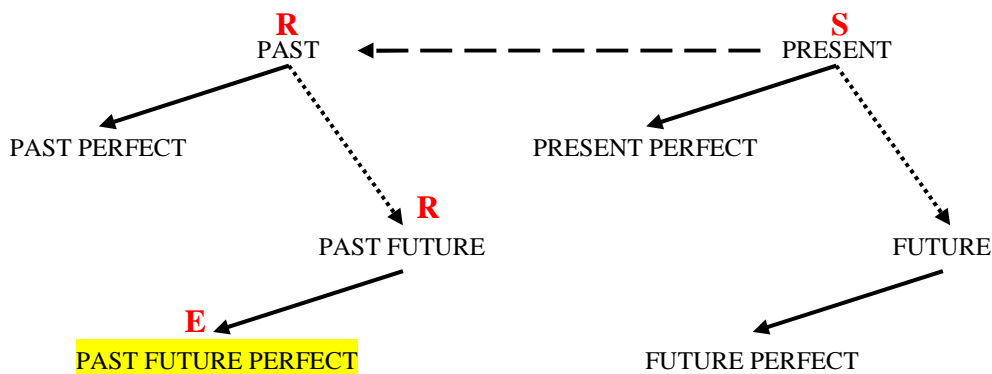
As far as E is concerned, the reading of the book, it cannot be placed in relation to S, i.e. Joe may have read the book already, he may be doing it as we speak, or he may yet have to do it.

What is more, E cannot be placed in relation to the first R either, i.e. at the time of promising Joe might already have read the book, he might have been in the process of reading the book, or he might not have done it yet.

All examples in (47) and (48) have this in common, i.e. the event precedes one reference point, this reference point follows another reference point, which again precedes the utterance.

In terms of the picture in (21)/(22), first we move in one direction (from PRESENT to PAST, and then in the opposite direction (from PAST to PAST FUTURE), and then in the opposite direction again (from PAST FUTURE to PAST FUTURE PERFECT).

(49)

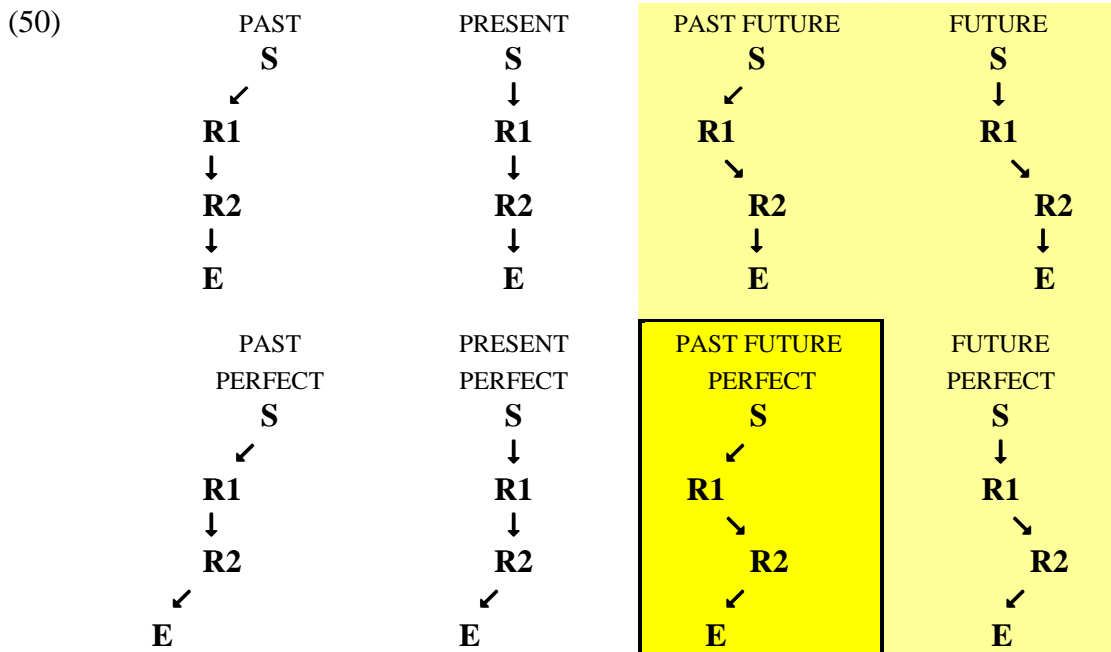


For PAST FUTURE PERFECT, we therefore need an analysis where utterance is only directly related to one reference point, and where event is only directly related to a different reference point. This can be illustrated as in the framed box in (50) below.

Although Comrie (1981:27, 1985:76) and I (Vikner 1985:92) both independently suggest this analysis, we draw very different conclusions. Comrie (1981:30) says that the reference points should only be used where they are absolutely necessary, i.e. only PAST FUTURE PERFECT involves two reference points, and (SIMPLE) PAST, PRESENT and FUTURE do not involve any reference points at all.

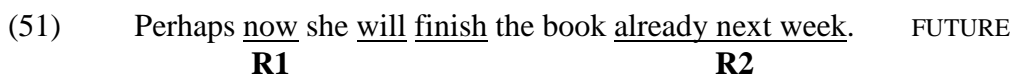
I disagree, as I claimed (Vikner 1985:93), and later e.g. Cinque (1999:133) agreed, that all eight tense forms have to be analysed in terms of two reference points.

In other words, as we need to reference points for PAST FUTURE PERFECT in the framed box in (50), in order to be consistent we now have to allow similar illustrations of the other seven tenses discussed so far:



Now PAST FUTURE PERFECT is not an exception, but just a maximal use of the system.

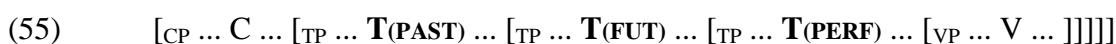
Taking all tenses to involve two reference points also has the advantage that it meets the need that the four future tenses have for two different reference points (all and only the four future tenses have in comment that R1 and R2 do not coincide, see (50)):



Taking all tenses to involve two reference points also has the advantage that it is possible to link every feature in (15)-(17) above to the relation between two points:

- (52) a. The first element of a + PAST tense ends in *-ed*. **R1 ← S**
 b. The first element of a - PAST tense ends in *-s* or zero. **R1 = S**
- (53) a. A + FUTURE tense involves a form of *will* (or *shall*) ... **R1 → R2**
 b. A - FUTURE tense does not. **R1 = R2**
- (54) a. A + PERFECT tense involves a form of *have* ... **E ← R2**
 b. A - PERFECT tense does not. **E = R2**

Cinque (1999:83, (14)) suggests that there are three functional heads (X^0) in syntactic structure which realise the above three features:



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