

Comparison of Time and Aspect in Breton and Welsh

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1. Introduction

This paper, which presents the main idea of the hypothesis discussed in my phd-thesis¹, is the slightly revised version of a talk I gave at the Rivaldi-meeting in Paris, on 15th April 1999.² In this paper I follow a strictly semasiological approach in order to describe the temporal and aspectual functions in Breton and Welsh. This means I define a set of functions independently of linguistic data before identifying these functions in the two languages being examined.

2. Time and Aspectuality

Before any language comparison a language independent functional system as to be established (ontological).

Such an *tertium comparationis* is needed to describe the (temporal and aspectual) functions which in a second step have to be identified within individual languages.³

The most important differentiation is a clear and sharp distinction between form and function (cf. Saussure 1916: 99ff). In order to maintain this crucial distinction, different terms must be employed to label, on the one hand, extra-linguistic, notional categories and, on the other, forms of individual languages, expressing the notional categories.

(1)

<i>phenomenon</i>	<i>extra-linguistic category</i>	<i>forms</i>
time	temporal stage	tense
	e.g. present time	Present Tense (English)
	past time	Perfective Preterite Tense (Welsh)

aspectuality	aspect	aspectual form
	e.g. imperfective	imperfectivity marker (Welsh <i>yn</i>)

¹Cf. Heinecke 1999.

²I like to express my great gratitude to Zlatka Guentchéva for the kind invitation to Paris to present my thesis to the Rivaldi group and also to Steve Hewitt who made the initial contact to Zlatka.

³My approach is mainly based on Heger 1963 and Heger 1967, with slight modifications concerning the extra-linguistic definition of aspectuality.

It should be kept in mind, however, that forms of an individual language usually express more than a single extra-linguistic category, i.e. tenses usually express temporal stages, aspectuality (if distinguished in that language) and modal functions, for example French *lisait* (Imparfait) expresses past time and imperfective aspect.

The extra-linguistic terms must not change when applied to different languages. Not all categories are expressible in all languages.⁴

3. Temporal stages

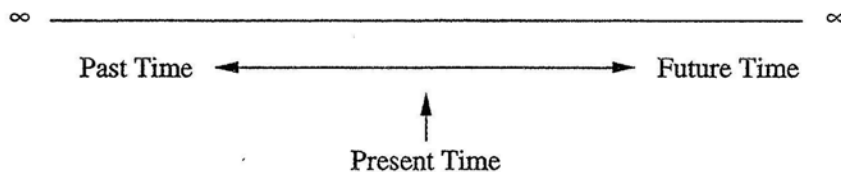
The concept of time used here is based on the assumption that the human perception of time is a linear, directed, monodimensional sequence of events, states, processes, etc. ("situations"). Onto this axis of time the *origo* of deixis⁵ (here temporal deixis, "present moment" or "now") is projected in order to distinguish between present time and not-present time.

Hence the fundamental opposition is "now" vs "not now".⁶

The point keeping apart past and future time, however, must not be confused with present time, but is only its projection onto the time line (Heger 1963: 27).

Past and future time (before and after the present time) are only retrievable for a hearer if the temporal deictic centre (usually the time of speech, i.e. present time) is known.⁷

(2) Time of first degree (adapted from Heger 1963: 27)



I will call the three temporal stages defined here *temporal stages of first degree* to avoid the misleading term "absolute" temporal stage, and to indicate that these temporal stage are in a direct relation to the *origo*.

⁴In order to avoid confusion, I will refrain from using terms like "perfect" or "imperfect". Traditionally, they are employed to denote certain tenses in European and also Semitic languages. They do not seem appropriate, however, to label extra-linguistic notions, because on the one hand they look similar to the aspectual categories "perfective" and "imperfective", and on the other hand these terms have been used in many different ways, not only as labels for functions, but also as labels for tenses in various languages.

⁵Bühler's *origo* (the deictic centre), is the speaker himself. The speaker can refer to himself at this *origo* with the pronoun I singular (personal deixis), to his location during the act of speaking (*here*, spatial or locational deixis), or to the time of speech (*now*, temporal deixis). Cf. Bühler 1990: 117: "three deictic words must be placed where the 0 [*origo*] is, namely the deictic words *here*, *now* and *I*".

⁶"Jetzt" vs "Nicht Jetzt" des Sprechers" (Heger 1967: 552).

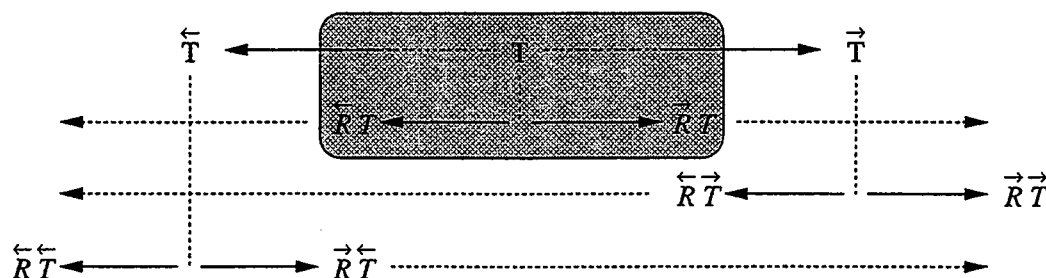
⁷This means that against traditional terminology even past and future are relative temporal stages (in relation to the time of speech) and not "absolute" temporal stages.

3.1. Temporal Stages of Second Degree

Temporal relations need not only hold between a situation and the present time⁸ but can also relate to another point on the time line⁹ which in turn is in a relation to present time.

The relations *before*, *after*, and *simultaneous* are thus applied to the three temporal stages (present (\overleftarrow{T}), past ($\overleftarrow{\overleftarrow{T}}$), and future time ($\overrightarrow{\overleftarrow{T}}$)) and thus yielding *anterior past* ($\overleftarrow{\overleftarrow{\overleftarrow{T}}}$), *present* ($\overleftarrow{\overleftarrow{RT}}$), and *future time* ($\overleftarrow{\overleftarrow{RT}}$), and *posterior past* ($\overrightarrow{\overleftarrow{\overleftarrow{T}}}$), *present* ($\overrightarrow{\overleftarrow{RT}}$), and *future time* ($\overrightarrow{\overleftarrow{RT}}$), i.e. *temporal stages of second degree* (figure 3).¹⁰

(3) Temporal stages of second degree (adapted from Heger 1963: 31)



Theoretically, this nine-stage system can be extended even further, using the temporal stages of second degrees as bases for new anterior/posterior-relations etc. *ad libitum*.

Due to the lack of conversational needs, however, and for reasons of linguistic economy, no language seems to employ forms to denote temporal stages of a degree higher than three. And those languages which do have such forms usually employ these forms for other functions too.

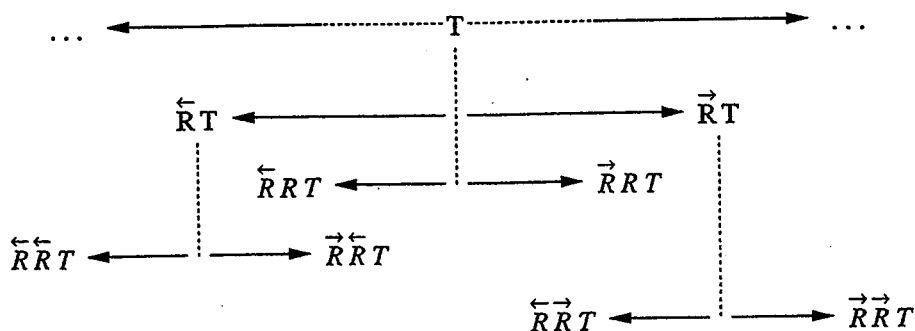
Figure 4 shows the gray area of figure 2 including temporal stages of third degree (anterior anterior present time ($\overleftarrow{\overleftarrow{\overleftarrow{T}}}$), posterior anterior present time ($\overrightarrow{\overleftarrow{\overleftarrow{T}}}$), anterior simultaneous present time ($\overleftarrow{\overleftarrow{\overleftarrow{RT}}}$) etc):

(4) Temporal stages of third degree

⁸=time of speech, cf. Reichenbach's S

⁹cf. Reichenbach's R

¹⁰The two-dimensional representation shall not imply that I regard the human perception of time in a two-dimensional way, but rather shows clearly the interdependence of temporal stages of differing degrees. For better understanding, the symbols for temporal stages of second degree are printed in *italics*. The dashed lines, which extend the vector drawn in solid lines indicate that in this model the temporal distance is not explicitly included and the length of the vector is variable.



Here the question must be raised as to how the difference between $\overleftarrow{T}-T-\overrightarrow{T}$ vs $\overleftarrow{RT}-T-\overrightarrow{RT}$ is defined. \overleftarrow{RT} and \overrightarrow{RT} have been integrated not only for the sake of symmetry, but because they are conceptually distinct from \overleftarrow{T} and \overrightarrow{T} . Past time and future time are in a primary relation to the deictic centre (present time), comparable to Reichenbach's *E before/after S*. In contrast, anterior present time (and analogously posterior present time) are only in a secondary relation to the deictic centre, since they are related to a reference point which in turn is related to the origo (cf. Reichenbach's *E before/after R simul S*). This difference between primary and secondary relation corresponds to an indirect or direct anterior (or posterior) relation and thus signifies the presence (in the case of past or future time) or absence (in the case of anterior or posterior present time) of a "time gap".¹¹

Admittedly, the differentiation between posterior present and future time or anterior present and past time is seldom realized in natural languages due to the lack of a communicative need to express such a notion. This, however, does not allow us to exclude such temporal stages principally from the theoretical model of temporal relations.

Returning to figures 3 and 4, these show that temporal stages of second or third degree which have relations in different directions are temporally indifferent to the present time, i.e. a posterior past time is not limited by the present time, but only a point in time which follows the past time and therefore can be before, at, or after the present: *I was going to eat* does not tell whether I have already eaten or still going to eat.

3.2. Deictic vs Definatory Categories

In order to define aspect in contrast to Aktionsarten a distinction between deictic and definitory¹² relations has to be established. Definitory categories are expressed by the meaning of a form and are independent of any context. The concept ("Begriff") expressed by a linguistic form is *defined* by its denotation. Deictic categories, however, relate *signifiant* to *signifié* within the frame given by the utterance. For instance, personal pronouns such as *I* or *you* do not represent a definition but a clearly defined point in the relational system.

¹¹Heger 1963: 31 originally labelled it "Zeitlücke". This time gap is visualized by the dashed first half of the vectors from T to \overleftarrow{T} and \overrightarrow{T} , which afterwards change to solid lines.

¹²These terms were introduced by Raible 1990: 195.

Deictic vs definatory can be paraphrased as follows: ¹³

- (5) "deictic" "related to the act of speaking"
 "definatory" "not related to the act of speaking"

Due to the incomplete definitions of aspects and resulting frequent confusion between Aktionsart, aspect and the underlying concept, German verbal prefixes (such as *jagen* vs *erjagen*) are frequently called aspect markers. This opposition is not an aspectual opposition but an opposition concerning Aktionsart:

- (6) Aktionsarten (here: telic vs atelic) and Aspects

		atelic: "to hunt"	telic: "to hunt down"
		<i>jagen</i>	<i>erjagen</i>
imperfective	Polish:	<i>gonić</i>	<i>doganiać</i>
	Russian:	<i>гнать</i>	<i>догонять</i>
	French:	<i>il chassait</i>	<i>il attrapait</i>
perfective	Polish:	<i>pogonić</i>	<i>dogonić</i>
	Russian:	<i>погнать</i>	<i>догнать</i>
	French:	<i>il chassa/a chassé</i>	<i>il attrapa/a attrapé</i>

The two mutually independent categories of aspect and categories can be explained with the categories "colours" (e.g. *red, green, blue*) vs "shapes" (*circle, triangle, square*). These independent categories can be combined, but only one element of each category can be involved at one time, i.e. *green+circle* or *green+square* or *red+triangle* but **not** *red+green* or *circle+triangle*.

3.3. Aspect

Having distinguished deictic aspect from non-deictic Aktionsarten, aspect can be defined. Heger 1963: 22 defines aspect as the opposition of the present time of the situation ("Jetzt des Vorgangs") vs the non-present time of the situation ("Nicht-Jetzt des Vorgangs"); the former represents the situation from within the situation (imperfective), the latter represents it from a point outside, i.e. in its totality (perfective). As the time of speech (present time) and the time of the situation need not necessarily be the same point in time, the latter must be understood as a fictitious point in time, which can be explained in terms of Bühler's "Deixis am Phantasma" (in Bühler 1990: 140 this term is translated "imagination-oriented deixis").

As said before, perfective aspect is the situation seen from outside, in its totality. If so, from where is this situation seen? Taking into account the monodimensional time line, the only location possible is before or after the event. Due to the directed and irreversible experience of time, this point or time of perspective ("Bezugspunkt") can only be located after the time of event (Heger 1963: 35).

Thus aspect cannot be defined in terms of bounded vs unbounded, because this difference (in my view, belonging to the verb's semantic, i.e. constitutes the Aktionsart of the verb) does not exclude a perspective onto the situation from either outside or inside.

¹³Schopf 1984: 228 draws a similar distinction insofar as aspects are within the language ("innersprachlich") in contrast to Aktionsart, which belong to the concept expressed ("außersprachlich").

3.4. Combination of Temporal Stages and Aspects

The defined categories can now be combined:

(7) Combination of temporal stages (first degree) and aspects (Heger 1963: 37)

		imperfective (A)	perfective (\bar{A})
future time	\vec{T}	$\vec{T} + A$	$\vec{T} + \bar{A}$
present time	(T)	T + A	T + \bar{A}
past time	\overleftarrow{T}	$\overleftarrow{T} + A$	$\overleftarrow{T} + \bar{A}$

This is not yet complete as for the perfective the time of perspective is not yet indicated. If the time of perspective is introduced, the event can be seen from all temporal stages in question, leading to table 8:

(8) Extended temporal stage-aspect combinations (Heger 1963: 39, modified notation)

	imperfective	perfective		
	A	\bar{A}		
		time of perspective		
		future time	present time	past time
future time \vec{T}	$\vec{T} + A$	$\vec{T} + \bar{A}_{\vec{T}}$	$\vec{T} + \bar{A}_T$	$\vec{T} + \bar{A}_{\overleftarrow{T}}$
present time T	T + A	T + $\bar{A}_{\vec{T}}$	T + \bar{A}_T	T + $\bar{A}_{\overleftarrow{T}}$
past time \bar{A}	$\overleftarrow{T} + A$	$\overleftarrow{T} + \bar{A}_{\vec{T}}$	$\overleftarrow{T} + \bar{A}_T$	$\overleftarrow{T} + \bar{A}_{\overleftarrow{T}}$

In accordance with the fact that this time of perspective cannot be located before the situation, only two possible localizations remain, impossible localizations are gray:

1. The event and the perspective are located in the same temporal stage. This does not mean that the time of perspective is inside the situation, but is rather immediately following the situation with "zero-distance" (\bar{A}). The combinations with zero-distance perfective are called "case of coincidence" (cf. Koschmieder 1930: 352). Verbs which can frequently be used with present time and perfective aspect marking are performative verbs.¹⁴
2. The time of perspective follows the time of event (\bar{A}).¹⁵

¹⁴Polish: *Poproszę* (perfective, present time reference) o bilety "ich bitte um die Fahrkarten". Koschmieder 1987: 93 also quotes Slovene *zahvalim se* "I (hereby) give thank" or *prisežem* "I swear".

¹⁵The relative difference, how far the time of perspective is located from the time of event, is irrelevant, as no language has forms to indicate this opposition.

Thus a past situation viewed from outside (perfective) at a time of perspective following the situation usually is located in the present time: $\overleftarrow{T} + \overline{A}_T$. A higher ability of abstraction is required to view a situation located at the present tense from a time of perspective in the future ($T + \overline{A}_{\overrightarrow{T}}$). Due to this difficult character, forms expressing it, may change their meaning to the less abstract perfective future time ($\overrightarrow{T} + \overline{A}$).¹⁶

For temporal stages of first degree, Heger finally arrives at the following combinations of temporal stages and aspects:

- (9) Extended temporal stages-aspect combinations (temporal stages of first degree, Heger 1967: 560, modified notation)

	imperfective	perfective, time of perspective located in			
		posterior future time	future time	present time	past time
future time	$\overrightarrow{T} + A$	$\overrightarrow{T} + \overline{A} \neq$	$\overrightarrow{T} + \overline{A}$		
present time	$T + A$	$T + \overline{A} \neq$		$T + \overline{A}$	
past time	$\overleftarrow{T} + A$	$\overleftarrow{T} + \overline{A} \neq$			$\overleftarrow{T} + \overline{A}$

Table 9 not only shows the different temporal-aspectual functions which are theoretically available for three temporal stages of first degree, but also their internal structure (Heger 1967: 43). For the following comparison of the verbal systems I will slightly reduce this system into a system of possible combinations of temporal stages and aspects (imperfective, perfective (non-zero distance), and perfective (zero-distance = case of coincidence)). Expanding this system for the use of temporal stages of second degree yields the following table:

- (10) Possible combinations of temporal stages of second degree and aspects

¹⁶This can, for instance, be observed in Russian, in which the present tense (with perfective verbs) has future time reference, as well as in Welsh. Welsh which thus has lost its possibility of present time reference in this way, has introduced a new (imperfective) form with present time reference, which is already attested in Middle Welsh texts.

temporal stage		imperfective	perfective with	
		A	non-zero-distance $\neq \bar{A}$	zero-distance $= \bar{A}$
anterior past	$\overleftarrow{\overleftarrow{RT}}$	$\overleftarrow{\overleftarrow{RT}} + A$	$\overleftarrow{\overleftarrow{RT}} + \neq \bar{A}$	$\overleftarrow{\overleftarrow{RT}} + = \bar{A}$
past	\overleftarrow{T}	$\overleftarrow{T} + A$	$\overleftarrow{T} + \neq \bar{A}$	$\overleftarrow{T} + = \bar{A}$
posterior past	$\overrightarrow{\overleftarrow{RT}}$	$\overrightarrow{\overleftarrow{RT}} + A$	$\overrightarrow{\overleftarrow{RT}} + \neq \bar{A}$	$\overrightarrow{\overleftarrow{RT}} + = \bar{A}$
anterior present	\overleftarrow{RT}	$\overleftarrow{RT} + A$	$\overleftarrow{RT} + \neq \bar{A}$	$\overleftarrow{RT} + = \bar{A}$
present	T	$T + A$	$T + \neq \bar{A}$	$T + = \bar{A}$
posterior present	\overrightarrow{RT}	$\overrightarrow{RT} + A$	$\overrightarrow{RT} + \neq \bar{A}$	$\overrightarrow{RT} + = \bar{A}$
anterior future	$\overleftarrow{\overrightarrow{RT}}$	$\overleftarrow{\overrightarrow{RT}} + A$	$\overleftarrow{\overrightarrow{RT}} + \neq \bar{A}$	$\overleftarrow{\overrightarrow{RT}} + = \bar{A}$
future	\overrightarrow{T}	$\overrightarrow{T} + A$	$\overrightarrow{T} + \neq \bar{A}$	$\overrightarrow{T} + = \bar{A}$
posterior future	$\overrightarrow{\overrightarrow{RT}}$	$\overrightarrow{\overrightarrow{RT}} + A$	$\overrightarrow{\overrightarrow{RT}} + \neq \bar{A}$	$\overrightarrow{\overrightarrow{RT}} + = \bar{A}$

We concentrate on the columns “imperfective” and “perfective with non-zero-distance”.

The preceding table can be taken to define the notion of “aspect language”. This is, in my view, a language, which provides means to express the aspectual opposition for every expression of a temporal stage, i.e. if this language expresses a certain temporal stage, it is also able to differentiate aspect in this very temporal stage.

According to this definition, for instance, French is not an aspect language, since it only distinguishes the aspectual opposition in forms which express the past time (Passé Simple (in spoken language replaced by Passé Composé, perfective) vs Imparfait (imperfective)).

Theoretically, a complete “aspect language” can express every situation in all temporal stage-aspect combinations up to a certain degree.

In reality, however, the inherent meaning of verbs in individual languages in combination with certain aspectual forms or tenses causes a “reinterpretation”:¹⁷ i.e. a form usually denoting a past time imperfective may be reinterpreted as past time without aspectual value, but with an iterative reading: *He was coughing* is usually interpreted as past time and iterative due to the punctual Aktionsart of the verb “to cough”.

The possible combinations also constitute an argument against using terms like “perfect” or “imperfect” as extra-linguistic categories of past time reference plus aspect as this ignores the fact that both aspects can theoretically be combined with all temporal stages, whether first or higher degree. Although many languages do not make use of such a well

¹⁷The literal meaning must be discarded in favour of an reinterpreted one:

I am sleeping: “sleep” must be understood as “taking a rest and trying to sleep, but being still awake” or similarly depending of the whole context or even time of the day this utterance is made.

I died: Unless uttered by a person believing in reincarnation, “die” can under no circumstances be taken in its original meaning. Indeed without a context a reinterpretation seems hardly possible. Imaginable would be a frustrated politician who was driven out of office and does not see any future chance to regain power. He might utter this sentence to refer to his political life, not to his biological life.

differentiated system, this cannot be taken as a reason to exclude possible combinations on the extra-linguistic level *a priori*.

A genuine aspect opposition (as I postulate exists in Breton and Welsh) is formally possible with all verbs (predicates) by periphrastic means unless it is expressed by port-manteau-morphemes together with time-reference markers (for example tenses such as the French *Imparfait*).¹⁸

4. Time and aspectuality in Breton

In this section I am going to present those Breton Tenses, which express the temporal and aspectual functions discussed and defined in the preceding sections. Modern Breton, as Welsh a P-Celtic language, differs considerably from Welsh from a typological point of view. As will become clear, Breton has a richer tense system than Welsh, including compound tenses using a past participle which do not exist in Welsh. On the other hand, the system of prepositions to express temporal and/or aspectual nuances as found in Welsh is nearly absent in Breton.

4.1. Temporal stage of first degree

Present time (T)

Breton has a synthetic present tense to express (imperfective) present time (and generic meanings). This is frequently used with the auxiliary *ober* "to do":

- (11) *Iffig a zebr bara du.*
 Iffig REL+SM SM-eat-PRES-3SG bread black
 "Iffig eats black bread."
- (12) *Ne welomp ket al liv anezhañ.*
 NEG see-PRES-1PL NEG DEF colour of-3SG-MASC
 "We do not see anything of him."

Past time (\overleftarrow{T})

Future time and past time are similarly expressed using synthetic tenses. In contrast to Welsh there are two tenses which refer to past time events, a perfective (example 13) and an imperfective preterite tense (15):

- (13) *Hag e welas dre ar prenestr.*
 and PRT+SM SM-see-PRETPF-3SG through DEF window
 "And he saw through the window."

¹⁸Many approaches to aspect also employ notions like habituality, continuousness, and progressivity (Comrie 1976, Dahl 1985, Bybee, Perkins, and Pagliuca 1994). The distinction between perfective and imperfective, however, is not always made very clear and sometimes progressive appears as a subcategory of the imperfective (Comrie 1976: 25). Bybee and Dahl 1989: 55 write that the progressive indicates that the situation is progressing at reference time. Those definitions are not helpful, and are merely the reading of dynamic verbs used with the imperfective aspect.

- (14) *Prestig e klevas unan o tond war e*
 soon PRT hear-PRETPF-3SG one IMPF+MM MM-come on his
lerh.
 steps

"Soon he heard somebody coming after him."

- (15) *Evel ma tremene dre ar vro-ze...*
 as if pass-PRETIF-3SG through DEF country-DEMPR
 "As he was passing through that country ..."

Example 14 seems to be replaced by a periphrastic form using the auxiliary *kaout* (cf. French Passé Simple which is replaced by Passé Composé in spoken language):

- (16) *Dec'h en deus Erwan gwelet Gwenola.*
 yesterday have-3SG-MASC Erwan see-PRTC Gwenola
 "Yesterday Erwan saw Gwenola."

Future time (\vec{T})

Future time is generally expressed by the future tense. In contrast to the Welsh Future Tense the Breton counterpart is not necessarily imperfective:

- (17) *Kemend-all a c'hoarvezo, moarvat, evit Barr-Heol a*
 as much REL happen-FUT-3SG surely for Barr-Heol REL
zo bet anezhi ... unan eus ar
 be-PRES-3SG-REL be-PRTC of-3SG-FEM one from DEF+AM
c'helaouennoù gwellañ hon eus bet biskoazh...
 AM-magazine-PL best have-PRES-1PL kaout-PRTC ever
 "The same will happen, probably, for Barr-Heol which has been one of the best
 magazines we ever had."

Due to the frequent *ober*-periphrasis in Breton, future time is also expressible by Future Tense of *ober*:

- (18) *Labourat a rin warc'hoazh.*
 work-INF REL+SM SM-do-FUT-1SG tomorrow
 "Tomorrow I will work."

As in many language, Present Tense can be used to refer to future situations if there is a temporal adverbial:

- (19) *Labourat a ran warc'hoazh.*
 work-INF REL+SM SM-do-PRES-1SG tomorrow
 "Tomorrow I work."

Explicit Imperfectivity

In all temporal stages of first degree there is a periphrastic construction using a similar formula as will be shown in the section on Welsh (51):

- (20) *bezañ*_{inflected} + *o+MM/oc'h* + infinitive

This construction can be employed to express explicitly the imperfective aspect:

- (21) *Da belec'h emaout o vont?*
 to+SM SM-where be-PRESSIT-3SG IMPF+MM MM-go-INF
 "Where are you going?"

The imperfective past time is expressed by a past time form of the auxiliary *bezañ*. The following example is taken from Leon dialect, which has a special tense *edon* not found elsewhere:

- (22) *P' edon o chom e Gwened ... e*
 when be-PRETSIT-1SG IMPF live-VN in Vannes PRT
kasen ur bern labour da fornioù pri-livet
 send-PRETIF-1SG INDEF pile work to oven-PL pottery
Lok-Maria Kemper
 Lok-Maria Kemper
 "When I lived/was living in Vannes, ... I sent/was sending a lot of work to the Lok-Maria potteries of Kemper."
- (23) *Er-maez e vo Erwan o labourat*
 outside PRT+SM SM-be-FUT-3SG Erwan IMPF work
warc'hoazh.
 tomorrow
 "Erwan will be working outside tomorrow."

Present time and perfective: "case of coincidence"

As already mentioned above, the combination of perfectivity and present time is restricted to the "case of coincidence", i.e. mainly to performative verbs. Since Breton, unlike Welsh, has a Present Tense beside the *o/oc'h*-periphrasis, it does not need to "abuse" an originally imperfective form in order to express the perfective present time:

- (24) *Prometiñ a ran dit e*
 promise-INF PRT+SM SM-do-PRES-1SG to-you-SG PRT+SM
rin ma labour warc'hoazh.
 SM-do-FUT-1SG my work tomorrow
 "I promise to do my work tomorrow."
- (25) *Touiñ a ran n' eo ket me*
 swear-INF PRT+SM SM-do-PRES-1SG NEG be-PRES-3SG NEG I
an hini en deus torret ar voutailh.
 DEF one have-PRES-3SG-MASC break-PRTC DEF+SM SM-bottle
 "I swear that I did not break the bottle."

4.2. Temporal stages of higher degree

Anteriority (\overleftarrow{RT} , \overleftarrow{RT} , \overleftarrow{RT})

This is in general expressed using the auxiliary *bezañ* or *kaout* (transitive verbs) and the participle (as mentioned before, with present-tense auxiliary this form also expresses past time).

- (26) *Chomet e vo ma zad da*
 stay-PRTC PRT+SM SM-be-FUT-3SG my+SM SM-father to
evañ ur banne gant an amezeg.
 drink-INF INDEF drop with DEF neighbour

"My father will have stayed to drink a glass with the neighbour."

Anterior preterite time is similarly expressed and shows the Imperfective Preterite Tense on the auxiliary. Whereas the Anterior Future Tense expresses in most cases the perfective aspect (as does the Anterior Present Tense, although it does not express anterior present time but past time), the aspectual meaning of the compound tenses seems to be non-perfective if not imperfective. In my view, this is mainly caused by the imperfective aspect expressed by the auxiliary *bezañ*_{PRETIF}:

- (27) *Glav a oa bet e-pad ar mintinvezh.*
 Rain REL be-PRETIF-3SG be-PRTC during DEF morning

"It had been raining during the morning."

Imperfective anteriority (\overleftarrow{RT} , \overleftarrow{RT} , $\overleftarrow{RT} + A$)

- (28) *Bet eo o vont e-unan.*
 be-PRTC be-PRES-3SG IMPF go-INF solely

"He was going on his own."

- (29) *Jakez a oa bet o freuzañ an embannoù.*
 Jakez REL be-PRETIF-3SG be-PRTC IMPF destroy-INF DEF
 publication-PL

"Jakez went and tore up the marriage banns."

This example is from Gros 1974: 310 and is translated into French originally as "J'avais été déchirer les publications de mariage".

Anteriority auxiliary *dont a*:

- (30) *Edo o tond a serriñ an nor.*
 be-PRETSIT-3SG IMPF-ANT close DEF door

"He has been closing the door."

Imperfective Posteriority (\overrightarrow{RT} , \overrightarrow{RT} , $\overrightarrow{RT} + A$)

The forms used to express the imperfective posteriority are in fact frequently aspectually unmarked and thus mark mainly the posteriority only.

- (31) ...*emaint* *o vont da* *gaoud* *ur* *chadenn* *skinwell*
 be-PRESSIT IMPF-POST+SM SM-have-INF INDEF channel TV
holl-gembraeg *a-benn* *miz Du* 1982.
 totally-Welsh until November 1982
 "...they are about to have a Welsh medium TV channel by November 1982."

The following two tables summarize the markers (tenses or periphrastic constructions) which are used to express temporal stage. The "main temporal reference", i.e. the temporal stage of first degree upon which the temporal stages of higher degree depend, is marked by tenses at the auxiliary (printed in *italics*). Table 33 summarizes the different elements expressing imperfective or perfective aspect explicitly. The perfective forms are less strictly aspect-marking, i.e. they are aspectually rather neutral.

(32) Breton Temporal Markers

degree	temporal relation	periphrasis
3	anterior-anteriority	<i>bezañ/kaout bet</i> + participle
2	anteriority	<i>dont a</i> + infinitive <i>bezañ/kaout</i> + participle <i>bezañ o paouez</i> + infinitive
1	simultaneity	Ø
	posteriority	<i>mont da</i> + infinitive

(33) Breton Aspect Markers

imperfective	<ul style="list-style-type: none"> • periphrasis using <i>o/oc'h</i> + infinitive • periphrasis using <i>o tond a/o vont da</i> + infinitive • Imperfective Preterite Tense • Present Tense (except case of coincidence)
perfective	<ul style="list-style-type: none"> • Perfective Preterite • periphrasis using <i>bezañ/kaout</i> + participle (except if in combination with <i>o/oc'h</i>) • Future Tense

Both preceding tables can be combined to arrive at a complete overview of the Breton temporal and aspectual system. This table, being the result of a semasiological analysis, does not imply that each of the forms listed has only one (temporal/aspectual) meaning but indicates only which temporal stage/aspect combination is expressed by which tense etc. Other functions of the tenses, especially non temporal (like the historical present or generic present) may exist.

(34) Temporal stage-aspect combinations in Breton

		imperfective (A)	perfective (\bar{A})
temporal stage	degree		
ante-anterior-past time	$\overleftarrow{\text{RTT}}$ 3		<i>em boa</i> ¹⁹ participle <i>bet</i>
anterior-past time	$\overleftarrow{\text{RT}}$ 2	<i>oan o tont a</i> infinitive	<i>em boa</i> participle, <i>em boa</i> participle <i>bet</i>
past time	$\overleftarrow{\text{T}}$ 1	verb _{PRETIF} , <i>em eus bet o</i> infinitive	verb _{PRETPF} , <i>em eus</i> participle
posterior-past time	$\overrightarrow{\text{RT}}$ 2	<i>oan o vont da</i> infinitive	<i>oan o vont da</i> infinitive
ante-anterior-present time	$\overleftarrow{\text{RRT}}$ 3		<i>em eus</i> participle <i>bet</i>
anterior-present time	$\overleftarrow{\text{RT}}$ 2	<i>emaon o tont a</i> infinitive	<i>em eus</i> participle, <i>em eus</i> participle <i>bet</i>
present time	$\overleftarrow{\text{T}}$ 1	<i>emaon o</i> infinitive, verb _{PRES} , <i>setu o</i> infinitive	verb _{PRES}
posterior-present time	$\overrightarrow{\text{RT}}$ 2	<i>emaon o vont da</i> infinitive	<i>ez/ec'h an da</i> infinitive, <i>emaon o vont da</i> infinitive
ante-anterior-future time	$\overleftrightarrow{\text{RRT}}$ 3		<i>em bo</i> participle <i>bet</i>
anterior-future time	$\overleftrightarrow{\text{RT}}$ 2	<i>vin o tont a</i> infinitive	<i>em bo</i> participle, <i>em bo</i> participle <i>bet</i>
future time	$\overleftrightarrow{\text{T}}$ 1	<i>vin o</i> infinitive, verb _{FUT}	verb _{FUT}
posterior-future time	$\overrightarrow{\text{RT}}$ 2	<i>vin o vont da</i> infinitive	<i>vin o vont da</i> infinitive

5. Time and aspectuality in Welsh

As indicated at the beginning of the previous section, Welsh uses quite different techniques to express temporal and aspectual relations. Since it has only two inflected tenses and no participles, Welsh is using periphrastic construction with prepositions instead.

5.1. Temporal stages of first degree

In a first step I will identify the forms to express the temporal stages of first degree, i.e. past, present and future time. Welsh has only got two "proper" tenses which are used to

¹⁹The auxiliary for the compound tenses which use the past participle is *bezañ* for intransitive verbs and *kaout* for transitive verbs.

express past time and future time respectively. Both express the perfect aspect.

Past time (\overleftarrow{T})

- (35) *Gwelodd Siân y gath yn y ddinas.*
 see-3SG-PRET Siân DEF+SM SM-cat in DEF+SM SM-city
 "Siân saw the cat in the city."

There are, among others, also periphrastic constructions using auxiliaries *gwneud* and *darfod*:²⁰

- (36) *Mi wnaeth o ddarllen y llythyr.*
 ASS+SM SM-do-PRET-3SG he SM-read-VN DEF letter
 "He read (Past) the letter."

- (37) *Ddarfu iddo fo ddod.*
 SM-happen-3SG-PRET to-3SG-MASC he SM-come-VN
 "It happened to him to come." ≈ "I came."

Future time (\overrightarrow{T})

Situations in the future time are usually referred to by the Future Tense (which as mentioned above, the perfective aspect in Welsh). The Present Tense forms can be used to express future time meaning, if either the context or another, explicit, future time marker such as an adverbial, is present.

- (38) *Mi ddaw o 'nôl 'fory.*
 ASS come-3SG-FUT he back tomorrow
 "He will come back tomorrow."
- (39) *Mae o 'n gadael 'fory.*
 be-PRES-3SG he IMPF leave tomorrow
 "He is leaving tomorrow."

Periphrases using the auxiliaries *gwneud* and *darfod* exist too, however, the *darfod* in combination with the Future Tense (example 41) is very rare:

- (40) *Mi wnaif i feddwl am y peth.*
 ASS do-FUT-1SG I SM-think-VN about DEF thing
 "I will think about this."
- (41) *Os derfydd ichwi gael gwybod, anfonwch lythyr.*
 if happen-3SG-FUT to-you-SG SM-get-VN knowledge
 send-IMP-PL SM-letter
 "If it will happen that you will get to know, send a letter."

²⁰Cf. Heinecke 1999: 171ff.

Verbless predications

The auxiliary *bod* "to be" which is used in verbless predications differs from other verbs in that it has two tenses referring to the past time, namely *oedd* (Perfective Preterite Tense, 3 SG) and *bu* (Imperfective Preterite Tense). At least in the spoken language, however, the former outnumbers the latter by 7 to 1.²¹

In some cases even native speakers do not agree on the exact temporal and aspectual meaning of the difference between these two tenses. In conjunction with the imperfective marker *yn* for some Welsh speakers the meaning remains perfective, i.e. the following phrases are regarded as temporally and aspectually identical:

- (42) *Bu* *Siân yn canu.* \approx *Canodd* *Siân.*
 be-PRETPF-3SG Siân IMPF sing-VN sing-PRET-3SG Siân
 "Siân sang."

The situation is seen from a point outside (perfective), but the duration of the situation seems to be different. *Bu* + *yn* + verbnoun is thus reinterpreted as a perfective durative.

Native consultants have affirmed my assumption that *bu* or *oedd* are without further context (such as full verbs, subordinations, adjuncts, etc.) temporally and aspectually identical. *Bu* and *oedd* reveal, however, a slight difference in durativity:

- (43) *Bu* *Siân ym Nolgellau.* \approx
 be-PRETPF-3SG Siân in+NM NM-Dolgellau
Roedd *Siân ym Nolgellau.*
 ASS-be-PRETIF-3SG Siân in+NM NM-Dolgellau
 "Siân was in Dolgellau." \approx "Siân was (for a while) in Dolgellau."

This may be explained by reference to the imperfective character of *oedd*. If a temporal modifier is added to both phrases, however, the difference vanishes:

- (44) *Bu* *Siân ym Nolgellau am flwyddyn.*
 be-PRETPF-3SG Siân in+NM NM-Dolgellau for year
 "Siân was in Dolgellau for a year."
- (45) *Roedd* *Siân ym Nolgellau am flwyddyn.*
 ASS-be-PRETIF-3SG Siân in+NM NM-Dolgellau for year
 "Siân was in Dolgellau for a year."

The imperfective meaning implied by the use of *oedd* is further shown by a counter-example to the phrases in example 43 above, i.e. by adding a subordination which requires an imperfective main clause. In this case the *bu*-variety becomes impossible:²²

²¹Fife 1990a: 149.

²²Cf. also Fife 1990b: 134 and 150 and also Jones and Thomas 1977: 138 (examples 128 and 129).

- (46) **Bu* *Siân ym Nolgellau pan*
 be-**PRETPF**-3SG Siân in+NM NM-Dolgellau when+SM
 brynodd gar newydd.
 SM-buy-**PRET**-3SG SM-car new
- (47) *Roedd* *Siân ym Nolgellau pan*
 ASS-be-**PRETIF**-3SG Siân in+NM NM-Dolgellau when+SM
 brynodd gar newydd.
 SM-buy-**PRET**-3SG SM-car new
 “Siân was in Dolgellau when he bought a new car.”

A final example which illustrates the aspectual difference between *bu* and *oedd* is found in a more colloquial register (Rowlands 1976: 19):

- (48) *Be sy* (*'n bod*)?
 what be-PRES-3SG-REL (IMPF be-VN)
 “What’s wrong/ the matter?”
- (49) *Be* *Ø* *oedd* (*'n bod*)?
 what REL be-**PRETIF**-3SG (IMPF be-VN)
 “What was wrong/ the matter?”
- (50) *Be* *Ø* *fuo’?*
 what REL+SM SM-be-**PRETPF**-3SG
 “‘What happened?”

The soft mutation of *fuo*²³ in example 50 and the relative form *sy’* (< *sydd*) of example 48 indicate that the interrogative pronoun is followed by a relative clause which is introduced by the relative form or by the relative pronoun *a* which in spoken language only leaves the soft mutation of the following word.

As a résumé, the difference between the two Preterite Tenses of *bod* becomes clear as in example 49 somebody asks about a situation (as ongoing, i.e. seen from a point of perspective within the situation), in contrast to 50 which is used to about for a situation seen from a point of perspective outside.²⁴

Present time: imperfective (T + A)

The imperfective counterpart to the examples above and for present time are always build using the following formula:

- (51) *bod*_{inflected} + *yn* + verbnoun

Apropos *yn*: Although the historical origin for *yn* is not totally clear (two roots are at least responsible for the three functional *yn*) I claim there are three independent functions of *yn* which are – at least in written Welsh – distinguished by mutations:

²³ = *Fuodd* (unmutated *buodd*) is the colloquial form of *bu*, having redundantly adopted the regular ending for the (Perfective) Preterite Tense.

²⁴ Example 50 was paraphrased by a South Walian speaker with *beth a ddigwyddodd* “what happened”. Here the perfective aspect is clearly expressed by the (perfective) Preterite Tense.

Inessive

- (52) *Mae Siân yn Nhregaron.*
 be-3SG-PRES Siân in+NM NM-Tregaron
 "Siân is in Tregaron."

Predicative

- (53) *Mae Siân yn fyfyrwr.*
 be-PRES-3SG Siân PRED+SM SM-student
 "Siân is a student."
- (54) *Roedd Bronwen yn gyflym.*
 ASS-be-PRETIF-3SG Bronwen PRED+SM SM-quick
 "Bronwen was quick."

Adverbs derived from adjectives are preceded by the predicative *yn* as well:

- (55) *Roedd Bronwen yn codi 'n gyflym.*
 ASS-be-PRETIF-3SG Bronwen IMPF get up-VN PRED+SM
 SM-quick
 "Bronwen was getting up quickly."

Imperfective

- (56) *Mae Llion yn rhyfeddu at y syniad.*
 be-PRES-3SG Llion IMPF wonder-VN about DEF idea
 "Llion is wondering about the idea."

Yn as the imperfectivity marker can also occur with the (Imperfect) Past and Future Tense of the auxiliary *bod*:

- (57) *Roedd Siân yn cau 'r drws ond ni chaeodd.*
 ASS-be-PRETIF-3SG Siân IMPF close-VN DEF door but
 NEG+AM AM-close-PRET-3SG
 "Siân was closing the door but didn't (actually) close it."²⁵

- (58) *Byddi di 'n eistedd ar yr ochr chwith.*
 be-FUT-2SG you-SG IMPF sit-VN on DEF side left
 "You will be sitting on the left side."

²⁵Cf. French "Il *fermait* la porte mais il ne l'a pas *fermée*".

Present time and perfective aspect: "case of coincidence"

The combination of perfectivity and present time is, as mentioned above in sections 3.4. and 4.1., restricted to the "case of coincidence", i.e. mainly to performative verbs. Due to the lack of an explicit form (there is no present time form apart from the imperfective periphrasis using *bod*_{PRES}²⁶ + *yn* + verbnoun) the imperfective present tense is employed:

- (59) *Yr wyf yn addo anfon/ y*
 ASS be-PRES-1SG IMPF promise-VN send-VN/ SUB
anfonaf y llythyr.
 send-FUT-1SG the letter
 "I promise to send the letter."
- (60) *Yr wyf trwy hyn yn addo dod/ y*
 ASS be-PRES-1SG hereby IMPF promise-VN come-VN/ SUB
deuaf yn f' ôl.
 come-FUT-1SG PRED my back
 "I hereby promise to come back."

In certain contexts, the *newydd*-periphrasis together with the present tense of *bod* (see below) which usually expresses \overleftarrow{RT} can be used for perfective present time reference. This is, however, not possible in conjunction with performative verbs:

- (61) *Dwi newydd orffen bwyta.*
 be-PRES-1SG ANTSIM+SM SM-finish eat-VN
 "I have just finished eating."

5.2. Temporal stages of higher degree

All other temporal stages have to be constructed with periphrastic means. In Welsh a similar formula as above is used to cover all secondary (and third) temporal stages:

- (62) *bod*_{inflected} + temporal marker + verbnoun

Anterior past/present/future time: wedi (\overleftarrow{RT} , \overleftarrow{RT} , \overleftarrow{RT})

- (63) *Mae 'r plant wedi chwarae.*
 be-PRES-3SG DEF children ANT play-VN
 "The children have played."
- (64) *Byddaf i wedi symud y cyfan erbyn i ti*
 be-FUT-1SG I ANT move-VN DEF whole by to PERSPR-2SG
ddod.
 SM-come-VN
 "I will have moved the lot by the time you have come."

²⁶I will use subscript tense labels to indicate that a form of this Tense paradigm is meant here.

- (65) *Yr oedd wedi prynu llestri newydd.*
 ASS be-PRETIF-3SG ANT buy-VN dishes new
 "He had bought new dishes."

Anteriority in subordinate clauses

Time reference in subordinate clauses results from the nominal characteristics of the Welsh verbnoun. Since subordinate clauses mostly employ non-finite verbs, the subject and tense must be marked in a different way (agreement is not possible). This is usually done with a possessive construction. Syntactically, the entire subordination is an object to the predicate of the main clause (Williams 1980: 170). The first example of the following shows a simple sentence with a nominal object (*ei lais*). In the subsequent examples, this is replaced by the subordinate clause.

- (66) *Clywodd o ei lais.*
 hear-PRET-3SG he his+SM SM-voice
 "He heard his voice."

In complex sentences, the object of the main clause is not nominal but is the subordinate clause. Within this clause the subject is the possessor of the verb (or auxiliary), the object remains in the usual object position (cf. example 69):

- (67)
- | | | | | | | |
|---------------------|----------------|---------------|-------------|-------------------|---------------|----------------------|
| <i>Clywais</i> | <i>ei</i> | <i>fod</i> | <i>wedi</i> | <i>ysgrifennu</i> | <i>llyfr.</i> | |
| hear-PRET-1SG | his+SM | SM+be-VN | ANT | write-VN | book | |
| verb+subject | object | | | | | <i>main clause</i> |
| | possessor | possessum | | | | |
| | subject | object | | | | <i>subordination</i> |
- "I heard that he had written a book."

An identical construction is used if the subject of the subordinate clause is a noun.²⁷

- (68)
- | | | | | | | |
|---------------------|---------------|----------------|----------------|-----------|--------------|----------------------|
| <i>Clywais</i> | <i>fod</i> | <i>y</i> | <i>bachgen</i> | <i>yn</i> | <i>canu.</i> | |
| hear-PRET-1SG | SM-be-VN | DEF | boy | IMPF | sing-VN | |
| verb+subject | object | | | | | <i>main clause</i> |
| | possessum | DEF | possessor | | | |
| | | subject | | | | <i>subordination</i> |
- "I heard that the boy was singing."

A possible object of the verb in the subordinate clause is marked at the verb itself (the subscript *t* indicates the referential identity of *dy* and *ti*):

²⁷The word order for nominal possessive relations is *possessum* DEF *possessor*, in which the definite article determines the whole construction.

91

- (73) *Dw i am ganu.*
 be-PRES-1SG I POST+SM SM-sing-VN
 "J'ai l'intention de chanter." (North Wales) but "J'ai envie de chanter." (South Wales)

Another temporal marker to express posteriority without this modal connotation is *ar*+SM ("on"). This periphrasis cannot be used with the imperfective marker. This leads to the conclusion that *bod* + *ar* + verbnoun constructions must be interpreted as aspectually indifferent (Fife 1990b: 339), otherwise Welsh would be unable to express imperfectivity combined with posteriority:

- (74) *Yr oedd ef ar gychwyn i rywle yn Ffrainc.*
 ASS be-PRETIF he POST+SM to+SM SM-start SM-somewhere
 in France
 "He was about to start for someplace in France."

Anterior simultaneous marker: newydd (\overleftarrow{RR})

Although I have argued that the perception of conceptual difference between past time and anterior present is waning there is a form in Welsh used to express anterior simultaneous time. The temporal marker for this is the adjective *newydd*+SM "new":

- (75) *Mae 'r plant newydd chwarae.*
 be-3SG-PRES DEF children ANTSIM play-VN
 "The children have just played."

Thomas 1996: 92 argues that *newydd* is distinct from *wedi* merely in the fact that its temporal distance is shorter than with *wedi*:

- (76) *Mae o newydd ymolchi.*
 be-PRES-3SG he ANTSIM REFL-wash
 "He has just washed himself." (very recently)

- (77) *Mae o wedi ymolchi.*
 be-PRES-3SG he ANT REFL-wash
 "He has washed himself." (some time ago)

This would result in a threefold means of expressing temporal distance for an situation *before* the time of speech, if the following example is also taken into account:

- (78) *Mi ymolchodd.*
 ASS REFL-wash-PRET-3SG
 "He washed himself."

The temporal distance, however, is heavily dependent on the context as well as on the situation described by the verbnoun. I therefore prefer the interpretation as an anterior simultaneous present.

If the auxiliary is marked with past or future time reference, *newydd* expresses anterior simultaneity to past (79) or future (80) time:

- (79) *Roedd o newydd orffen.*
 ASS-be-PRETIF he ANTSIM+SM SM-finish-VN
 "He had just finished."
- (80) *Mi fydd o newydd orffen.*
 ASS+SM SM-be-PRETIF he ANTSIM+SM SM-finish-VN
 "He will have just finished."

Rowlands 1976: 5 interprets the *newydd*-construction in a third way. In his view, *newydd* is distinct from *wedi* in that it postpones the situation, thus becoming a posterior anterior time marker. I do not follow Rowlands' explanation for three reasons. Firstly, evidence from Welsh data (written and spoken) does not allow a posterior-anterior reading:

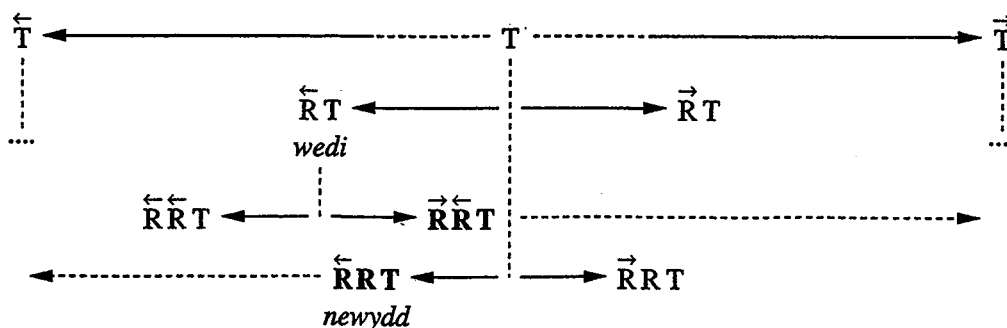
- (81) *Gwraig bedwar ugain oed ydi Menna Keel,*
 woman SM-four twenty age be-PRES-3SG Menna Keel
sydd newydd gyfansoddi symffoni newydd,
 be-PRES-3SG-REL ANTSIM SM-compose-VN symphony new
symffoni ardderchog, [...]
 symphony excellent
 "A woman of the age of 80 is Menna Keel, who just has composed a new symphony, an excellent symphony, [...]"

Secondly, I agree with Jones and Thomas 1977: 121ff who show that *newydd* (and *wedi* as well) can be combined with *ar* to express posterior-anterior time. Such a complex periphrastic form would be unexpectedly uneconomical, if *newydd* expressed posterior anteriority as well.

Thirdly, as examples in this section have shown, the time of situation expressed by a *newydd*-construction are always located before the corresponding temporal stage of first degree, i.e. anterior simultaneous past time is located before past time. Further, it is always closer to the first degree temporal stage than the *wedi*-construction.²⁹ If the two examples 76 and 77 are interpreted in an extended version of figure 2 it can be shown that *newydd*-constructions impossibly express posterior-anterior temporal stages:

- (82) Anterior simultaneous and posterior anterior temporal stages: *wedi* and *newydd*

²⁹ As confirmed by e.g. Thomas 1996: 92.



A form denoting posterior anterior present time (\overleftarrow{RRT}) is not directly linked to present time. The situation is after anterior present time (\overleftarrow{RT}) but not necessarily before present time, i.e. it may be located after the present time (point of speech). As the latter is an impossible time reference for the *newydd*-construction, it therefore can express only anterior simultaneous present time (\overleftarrow{RRT}). The same relationship exists if past and future time are “anchoring” temporal stages of first degree.

While discussing *newydd*, a different function must be mentioned. Context dependent perfectivity with present time reference (case of coincidence) can also be expressed by *newydd*:

- (83) Yr wyf newydd ddarllen llyfr da.
 a) ASS be-PRES-1SG PERFZERO+SM SM-read book good
 b) ASS be-PRES-1SG ANTSIM+SM SM-read book good
 a) “I just finish reading a good book” vs b) “I have just read a good book.”

Posterior anterior marking: (\overleftarrow{RR})

Quoting from Jones 1970: 107, these examples get less accepted by natives.

- (84) Mae Ieuan newydd fod ar gychwyn.
 be-PRES-3SG Ieuan ANTSIM+SM SM-be-VN POST+SM SM-start
 “Ieuan has just been about to start.”

5.3. Imperfectivity with temporal stages of non-first degree

Frequently, it is claimed that all markers such as *yn*, *wedi* etc. are aspect markers. Especially *yn* and *wedi* are listed as “opposition”, namely *yn* expressing an “uncompleted ongoing” situation vs *wedi* which stands “for completed or bounded” situations. I cannot agree with this view, because the existing possibility of combining *yn* and *wedi* rejects this interpretation. In my opinion *yn* on the one hand and all other markers which can appear between *bod* and the verbnoun belong to two different categories. *Yn* is the imperfective marker, whereas on the other hand all other markers are temporal markers which establish a certain relation to a temporal stage of first degree marked at the auxiliary. The whole periphrasis thus functions as a tense. Further, the often observed fact that *bod* + *wedi* + verbnoun periphrases are perfective is not achieved by *wedi* but, on the opposite, by the absence of *yn* as the imperfective marker.

This is, in my view, shown by the fact that all *yn*-periphrases (with the sole exception of the case of coincidence, are imperfective, including the periphrases with both markers *wedi* and *yn*.

An extended (recursive) version of formula 62 explains the syntactic structure of the imperfective aspect in conjunction with temporal stages of non-first degrees.

Since both imperfectivity (85a) and temporal relations (85b) are expressed by similar periphrastic constructions, they have to be combined to express imperfectivity with temporal stages higher than first degree (85c).

- (85) a) *bod* + *yn* + verbnoun
 b) *bod* + temporal marker + verbnoun
 c) *bod* + temporal marker + *bod*-VN + *yn* + verbnoun

"temporal marker" is one of *wedi*, *newydd*, *wedi hen*, *am*, *ar* and *ar fin*

Generally, the temporal markers precede the imperfective marker:

- (86) *Roedd Siân wedi bod yn canu...*
 ASS-be-PRETIF-3SG Siân ANT be-VN IMPF sing-VN
bod marker verbnoun
bod subject marker verbnoun

"Siân had been singing, ..."

- (87) *Byddwn ni wedi bod yn siarad efo fo.*
 be-FUT-1PL we ANT be-VN IMPF speak-VN with him
 "We will have been speaking with him."

- (88) *Maen nhw wedi bod yn yfed llawer.*
 be-PRES-3PL they ANT be-VN IMPF drink-VN lots
 "They have been drinking a great deal."

The temporal difference between the anterior (\bar{R}) and the anterior-simultaneous ($\bar{R}\bar{R}$) form comes even clearer in combination with the imperfectivity marker:

- (89) *Yr wyf wedi bod yn canu.*
 ASS be-PRES-1SG ANT be-VN IMPF sing-VN
 "I have been singing."

versus:

- (90) *Yr wyf newydd fod yn canu.*
 ASS be-PRES-1SG ANTSIM be-VN IMPF sing-VN
 "I just have been singing."

Apart from the anterior-forms, imperfectivity can be explicitly marked also with other temporal stages of higher degree. For example, Rowlands 1985: 138 gives two examples of imperfective posterior time, although without a context (It must be noted that these forms are possible but extremely rare and judged by some natives as unnatural):

- (91) a) *Yr wyf am fod yn canu.*
 ASS be-PRES-1SG POST+SM SM-be-VN IMPF sing
 "I am going to be singing."
- b) *Byddaf am fod yn canu.*
 be-FUT-1SG POST+SM SM-be-VN IMPF sing
 "I will be going to be singing."

From the examples presented in this section the following temporal markers of Welsh can be identified:

(92) Welsh temporal markers

degree	temporal relation	periphrasis
3	ante-anteriority	<i>bod wedi hen</i> +SM
2	anteriority	<i>bod wedi</i>
3	post-anteriority	<i>bod wedi bod ar</i> +SM
3	ante-simultaneity	<i>bod newydd</i> +SM
4	post-ante-simultaneity	<i>bod newydd fod ar</i> +SM
1	simultaneity	Ø
3	post-simultaneity	<i>bod ar fin</i>
3	ante-posteriority	—
2	posteriority	<i>bod am</i> +SM
3	post-posteriority	—

Similarly the obviously clearly distinguishable aspectual markers can be formalized as follows:

(93) Welsh aspect markers

- | | |
|--------------|---|
| imperfective | • temporal marking + <i>bod yn</i> + verbnoun |
| perfective | • temporal marking + verbnoun |
| | • inflected full verb if the temporal marking is Ø and the temporal stage of first degree is not present time |
| | • periphrases with <i>gwneud</i> or <i>cael</i> ; in the case of past time also <i>darfu i</i> ; in the case of future time also <i>derfydd i</i> |

The following table summarizes the results. For each time stage of first degree, time stages of higher degree are listed with forms to be used to express this function. Forms appearing more than once in the table express several temporal-aspectual functions and can only be disambiguated on context. As already mentioned in the previous section on Breton, this table is the result of an semasiological analysis and therefore lists all forms which express a certain time/aspectuality combination, but not necessarily all functions of a certain form. So especially generic usages etc. cannot be found in this table.

(94) Temporal Stage-Aspect Combinations in Welsh

TIME AND ASPECT IN BRETON AND WELSH

temporal stage	degree	imperfective (A)	perfective (A [≠])
ante- anteriority	$\overleftarrow{R}\overleftarrow{R}[\overleftarrow{T}/\overleftarrow{T}/\overrightarrow{T}]$ 3	? <i>bod wedi hen fod yn</i> verbnoun	<i>bod wedi hen</i> verbnoun
anteriority	$\overleftarrow{R}[\overleftarrow{T}/\overleftarrow{T}/\overrightarrow{T}]$ 2	<i>bod wedi bod yn</i> verbnoun	<i>bod wedi</i> verbnoun
post- anteriority	$\overrightarrow{R}\overleftarrow{R}[\overleftarrow{T}/\overleftarrow{T}/\overrightarrow{T}]$ 3		<i>bod wedi bod ar</i> verbnoun (<i>bod newydd fod ar</i> verbnoun)
ante- simultaneity	$\overleftarrow{R}\overleftarrow{R}[\overleftarrow{T}/\overleftarrow{T}/\overrightarrow{T}]$ 3	<i>bod newydd fod yn</i> verbnoun	<i>bod newydd</i> verbnoun
post- ante- simultaneity	$\overrightarrow{R}\overleftarrow{R}\overleftarrow{R}[\overleftarrow{T}/\overleftarrow{T}/\overrightarrow{T}]$ 4		(<i>bod newydd fod ar</i> verbnoun)
simultaneity	$[\overleftarrow{T}/\overleftarrow{T}/\overrightarrow{T}]$ 1	<i>bod yn</i> verbnoun	verb, <i>gwneud</i> + verbnoun, <i>darfu i/derfydd i</i> + subject + verbnoun ³⁰
post- simultaneity	$\overrightarrow{R}\overleftarrow{R}[\overleftarrow{T}/\overleftarrow{T}/\overrightarrow{T}]$ 3	? <i>bod ar fin bod yn</i> verbnoun	<i>bod ar fin</i> verbnoun
ante- posteriority	$\overleftarrow{R}\overleftarrow{R}[\overleftarrow{T}/\overleftarrow{T}/\overrightarrow{T}]$ 3		
posteriority	$\overrightarrow{R}[\overleftarrow{T}/\overleftarrow{T}/\overrightarrow{T}]$ 2	<i>bod am fod yn</i> verbnoun	<i>bod am</i> verbnoun
post- posteriority	$\overrightarrow{R}\overrightarrow{R}[\overleftarrow{T}/\overleftarrow{T}/\overrightarrow{T}]$ 3		

6. Conclusion

The analysis using the temporal and aspectual categories defined previously shows that in spite of the close genetic relation, Breton and Welsh use quite different means to express time and aspect. Especially the posterior and anterior times show differences: Breton uses participles and verbs like *dont* "to come" and *mont* "to go" where Welsh uses prepositions like *wedi*, *newydd* and *ar*. In general, the Welsh system is far more regular, e.g. the periphrases using *newydd* etc. are not restricted to a present time auxiliary.

The few similarities found (e.g. the imperfective construction *bod* + *yn* + verbnoun in Welsh and *bezañ* + *o/oc'h* + infinitive for Breton) pose more questions than answers: Both imperfectivity markers have obviously different etymological origins. Eventhough the etymology of Welsh *yn* is not totally clear³¹ it is not related to Breton *o/oc'h*. Further

³¹Cf. also Isaac 1994.

interesting questions are raised by the comparison undertaken: Which internal development and which external influences (notably French on Breton and English on Welsh have to be taken into account and caused the current state of affairs?

Abbreviations

A	imperfective	PRES	present tense
\bar{A}	perfective	PRESHABIT	habitual present tense
\bar{A}	perfective (zero-distance)	PRESSIT	situational present tense
$\neq A$	perfective (non-zero-distance)	PRETHABIT	habitual preterite tense
AM	aspirate mutated	PRETIF	imperfective preterite tense
+AM	triggers aspirate mutation on the following word	PRETPF	perfective preterite tense
ANT	anterior marker	PRETSIT	situational preterite tense
ANTSIM	anterior-simultaneous marker	PRT	particle
ASS	assertion marker	PRTC	participle
DEF	definite	$\bar{R}[T, \bar{T}, \vec{T}]$	anterior present/past/future time
DEMPR	demonstrative pronoun	$\overleftarrow{RR}[T, \bar{T}, \vec{T}]$	anterior anterior present/past/future time
IMP	imperative	$\overleftarrow{RR}[T, \bar{T}, \vec{T}]$	anterior simultaneous present/past/future time
IMPF	imperfective	$\vec{R}[T, \bar{T}, \vec{T}]$	posterior present/past/future time
IMPS	impersonal	$\overrightarrow{RR}[T, \bar{T}, \vec{T}]$	posterior anterior present/past/future time
INDEF	indefinite	$\overrightarrow{RR}[T, \bar{T}, \vec{T}]$	posterior simultaneous present/past/future time
INF	infinitive	SG	singular
MASC	masculine	SM	soft mutated
MM	mixed mutated	+SM	triggers soft mutation on the following word
+MM	triggers mixed mutation on the following word	\vec{T}	future time
NEG	negation	\bar{T}	past time
NM	nasal mutated	T	present time
+NM	triggers nasal mutation on the following word	VN	verbnoun
PERF	perfective		
POST	posterior marker		
POSTSIM	posterior-simultaneous marker		

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