

Future tense, prospective aspect, and irrealis mood as part of the situation perspective: Insights from Basque, Turkish, and Papuan

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1. Introduction

A verbal inflection whose primary function is to indicate future time reference is commonly called ‘future tense’. In descriptive practice, however, such morphological markers are often polysemous or multifunctional. In the main part of this paper, I will present three descriptive case studies illustrating some of the problems involved. The choice of these three case studies – Turkish, Basque, and the Papuan language Iatmul – is motivated by the fact that they have markers that are often glossed as ‘future’ – including by myself in the past – but a closer examination will reveal that this label is problematic in all three languages. It is therefore avoided in this paper, the more appropriate labels ‘prospective’ (for Turkish and Basque) and ‘irrealis’ (for Iatmul) being advocated instead. In order to facilitate the understanding of the data, the language-specific sections 2 (Turkish), 3 (Basque), and 4 (Iatmul) will begin with a short overview of the verbal morphology of each language, limited to the aspects relevant for the subject matter of this paper.

In the second part of sections 2-4, the approach is first onomasiological, that is, we start with the function and look for the corresponding structural means to express that function in a given language. In our case, this means that we single out the concept of future time reference and look for its grammatical correlates in our language sample. The structural means found through this approach will be called FUTURITY MARKERS, intended as a mere “working label” for a COMPARATIVE CONCEPT in the sense of Haspelmath (2010: 664), which can be used for cross-linguistic comparison without making any claims about the exact morphosyntactic or semantic properties of the different markers. Given that these properties are different depending on the marker and the language, the second step is semasiological (form-to-function), as we describe the polysemy and, where applicable, diachrony of the morphemes and constructions found through the onomasiological approach.

Section 5 draws attention to the fact that dependent clauses can have TAM distinctions and markers different from those of main clauses. This will be illustrated with nominalized predicates in Turkish and Iatmul. The corresponding analytical and terminological issues will also be addressed.

Section 6 deals with overlap and differences between prospective, future, and irrealis. We will see that the distinction between prospective aspect and future tense also depends on the extent to which a prospective construction is grammaticalized. While a present prospective can develop into a future, past prospectives tend to take over the function of counterfactual conditionals in the past. Both scenarios involve a shift from realis to irrealis status. This will be illustrated by strikingly parallel phenomena in Turkish and Basque.

Section 7 will sum up the discussion. First of all, we should observe a distinction between futurity markers and future tense markers. If we follow the argumentation in Haspelmath (2010: 671), a given language would then have futurity marking as a (cross-linguistic) comparative concept, but it would not have future tense as a (language-specific) descriptive category. This is comparable to those languages that use verbs (as defined by language-internal criteria) “as” adjectives (in the sense of a comparative concept). We will see in this paper that Turkish and Basque use their aspect categories, and that Iatmul (and English) use language-specific modal markers to express a cross-linguistic category future (tense/time). However, aspectual, temporal, and modal markers are connected by grammaticalization scales, so that in addition to language-internal structural criteria, we also have to take into account that tense markers may develop from aspect markers. All TAM marking contributes to the SITUATION PERSPECTIVE, where zooming in corresponds to the individuation of the predicate, analogous to the referential individuation of participants.

2. Turkish

2.1. Morphological overview

In order to provide you with a general idea of what we are looking at, I will start by presenting my own analysis of the Turkish data. We will then look at other linguists’ descriptions; this survey will reveal a great deal of variation.

In Turkish, there are various markers and constructions to express future time reference. I will focus here on two morphemes, *-er* and *-ecek*, which I will call ‘dispositive’ and ‘prospective’¹. Morphologically, they can be analyzed as being in the aspectual slot and therefore combine with present (1)-(2) and past tense (3)-(4) markers.

¹ Göksel & Kerslake (2005: 329-330) further list the following markers to express future time reference: (a) the imperfective marker *-(I)yor* “when talking about events that are scheduled or fixed”; (b) the construction *-mAk üzere* ‘on the point of . . . ing’, which can be used to express action that is imminent.

- (1) *gid-er-Ø-sin*²
 go-DISP-PRS-2SG
 ‘you are going’
- (2) *gid-ecek-Ø-sin*
 go-PROSP-PRS-2SG
 ‘you will go’
- (3) *gid-er-di-n*
 go-DISP-PST-2SG
 ‘you used to go’; ‘you would have gone’
- (4) *gid-ecek-ti-n*
 go-PROSP-PST-2SG
 ‘you were (about) to go’

In addition to these two, there are two more aspects, the progressive (also: ‘imperfective’, ‘continuous’) and the perfective. The combination of four aspectual and two tense terms yields the eight forms given in Table 1.

	Tense Present	Past
Aspect		
Progressive	<i>gid-iyor-Ø-sun</i>	<i>gid-iyor-du-n</i>
Dispositive	<i>gid-er-Ø-sin</i>	<i>gid-er-di-n</i>
Prospective	<i>gid-ecek-Ø-sin</i>	<i>gid-ecek-ti-n</i>
Perfective	<i>git-miş-Ø-sin</i>	<i>git-miş-ti-n</i>

Table 1. *Tense-Aspect combinations in Turkish*

Note that present tense has zero exponence according to this analysis; for alternative views interpreting the aspect markers as tense, see below. The verb forms seen so far thus have the structure stem-aspect-tense-subject. In order to provide the reader with an

² The suffixes have phonologically conditioned allomorphs. As for the past tense marker, its onset varies between *d~t* while the vowel can be *i~ı~u~ü*, depending on the segments of the preceding syllable. The prospective marker has the allomorphs *ecek~acak*, preceded by *y* if immediately following a vowel; the final *k* is omitted before a vowel, which is represented in orthography by *ğ*. Finally, the dispositive suffix has the allomorphs *-er~ar~ır~ür~ur~ır~r*, as well as *-z* when immediately following the negator *-me~ma*. These allomorphic variations are irrelevant for our discussion, for details see e.g. Göksel & Kerslake (2005: 21-25; 43-44) or Bassarak & Jendraschek (2004: 1359).

idea of the complexity of Turkish verbal morphology, Table 2 presents a basic template for finite main clause verb forms, adapted from Bassarak & Jendraschek (2004: 1365) and Göksel & Kerslake (2005: 77).

	position/slot
stem	1 root
	2 reflexive/reciprocal
	3 causative
	4 passive
	5 negation
	6 potential
inflection	7 aspect
	8 number (only 3PL)
	9 interrogative
	10 tense
	11 subject

Table 2. *Basic template for Turkish verbal morphology*

2.2. Formal and semantic properties of futurity markers

Although Turkish is among the best-described languages of the world, descriptions of its TAM system are inconsistent, so I would disagree with Sezer (2001: 1) when he writes that “the order, shape and meaning of the affixes that represent tense, aspect, mood and agreement have been well identified”.

Beginning with the *-er* exponent, we find the label DISPOSITIVE, viewed as a term in the category **aspect** (Bassarak & Jendraschek 2004), but we also find the label PRESENT, a term in the category **tense** (Underhill 1976), or PRESENT I (Johanson 1994), analyzed as a **tense-aspect** form. The most common term however is AORIST, described by some as a second present **tense**, contrasting with the “normal present” (Çakır 2009; Ersen-Rasch 2004); a similar approach can be found in Lewis (1967). This label is so vague though that it is sometimes included among the aspects, sometimes among the tenses, and we even find it described as belonging to the realm of modality. It is described as expressing a general present tense in Kornfilt (1997: 336) or the habitual aspect (Kornfilt 1997: 356). And according to Göksel & Kerslake (2005: 338-339), AORIST is primarily a marker of **modality**.

For the *-ecek* exponent, we find the labels PROSPECTIVE/FUTURE, assigned to the category **aspect** (Bassarak & Jendraschek 2004); FUTURE, understood as a term in the category **tense** (Underhill 1976; Çakır 2009; Ersen-Rasch 2004; Kornfilt 1997; Lewis

1967); or FUTURE, this time as a marker of “**relative tense**”, contrasting with the category “absolute tense”, which in Turkish would have only the terms “past” and “non-past” (Göksel & Kerslake 2005: 326). Johanson (1994: 248-255) does not distinguish between tense and aspect, and interestingly, he seems to suggest that *-ecek* yields FUTURE *forms* with PROSPECTIVE *semantics*, but could primarily be a DEONTIC **modal** perspective.

The preceding discussion and comparison have shown that linguists who do not recognize the zero exponence of present tense have two choices. Either analyze *-er* and *-ecek* as marking tense, while accepting the absence of aspectual marking; or accept the absence of tense marking, with overt marking only of aspect. As we have seen, the first solution has been largely preferred. Yet, this descriptive bias favouring an analysis in terms of tense has led to terminological contradictions such as ‘present/aorist/future in the past’ (as in Çakır 2009: 67-68; cf. ‘futurum praeteriti’ in Johanson 1994) or even ‘present past’ (Lewis 1967: 109). A further consequence of the tense bias is an unnecessarily complicated description, yielding in fact a primary tense system – with the six “basic tenses” present, aorist, future, preterit, perfect, and continuative, if we follow Ersen-Rasch (2004: 138-151) – which can be emdedded in a secondary tense system (when combined with past tense). In Johanson’s (1994) model, all exponents express tense-aspect combinations, of which there are at least fifteen, and the markers *-er* and *-ecek* are subsumed under the labels present and future, respectively.

In contrast, I am arguing here that the label ‘future tense’ is inappropriate for Turkish in the first place, since future time reference is (typically) expressed by the combination of prospective *aspect* with present *tense*. Note also that my analysis is not *purely* aspectual, ie. it is not the mirror image of the tense-biased description, since I argue that tense *is* expressed in (1) and (2), namely by a zero-morpheme.³

Since both the dispositive and the prospective can signal future time reference when combined with present tense, we have to distinguish between two kinds of “future”. If we summarize the semantic functions given in the grammatical descriptions, we can single out several subdomains. First, the *-er* exponent can express **generic** statements, including generalized, habitual, repeated actions or events, as well as universal truths. This use is illustrated by (5), taken from Göksel & Kerslake (2005: 339; my glosses).

- (5) *İki, iki daha dört ed-er-Ø-Ø*
 two two more four do-DISP-PRS-3
 ‘Two and two make four.’

³ An analysis positing a zero present tense exponent can also be found in Lees (1962, 1972).

Second, it expresses **properties** of the subject referent, such as actions for which the subject referent has a disposition, inherent qualities or behaviour, and long-term patterns of behaviour. A relevant example is (6).

- (6) *Amerika-lı-lar çok süt iç-er-Ø-Ø*
America-ADJR-PL much milk drink-DISP-PRS-3
'(The) Americans drink a lot of milk.' (Göksel & Kerslake 2005: 340)

Third, it is used for less actual, in other words more **virtual** situations, such as ability (7), and imaginable or possible events, such as the one expressed by the second clause of (8), which expresses a likely consequence of the event referred to by the first clause.

- (7) *Adem iyi satranç oyna-r-Ø-Ø*
Adem good chess play-DISP-PRS-3
'Adem is good at chess.' (Çakır 2009: 57)

- (8) *Koş-ma düş-er-Ø-sin.*
run-NEG(IMP) fall-DISP-PRS-2SG
'Don't run, you'll fall over.' (Göksel & Kerslake 2005: 342)

Being used for imaginable events, it is also compatible with “events that are not envisaged as planned or predetermined” (Göksel & Kerslake 2005: 343), that is assumptions or expectations about the future, rather than predictions. This use of the dispositive is illustrated by (9). Note that the dispositive has the suppletive form *-z* when immediately following the negator *-me*.

- (9) *Um-ar-Ø-ım Semra vazo-nun yokluğ-un-u*
hope-DISP-PRS-1SG Semra vase-GEN absence-POSS.3-ACC

farket-me-z-Ø-Ø.
notice-NEG-DISP-PRS-3
'I hope Semra won't notice the absence of the vase.'
(Göksel & Kerslake 2005: 343)

Since the dispositive is used to refer to events that are less direct or immediate, it is also common as a downgrader for politeness effect, (10).

(10) *Lütfen, kapı-yı aç-ar=mi-Ø-sınız?*
please door-ACC open-DISP=INT-PRS-2PL
'Would you please open the door?' (Çakır 2009: 57)

And fourth, it can be found with **intentions**, commitment or promise, indicating that the subject referent acts voluntarily in the future, (11).

(11) *Sen-i mutlaka bekle-r-Ø-iz*
2SG-ACC definitely wait-DISP-PRS-1PL
'We'll be definitely waiting for you.' (Ersen-Rasch 2004: 143)

In contrast to the dispositive, the *-ecek* exponent expresses a firm, more definitive prediction, presented as a matter of future fact, often indicating a pre-existing plan. Ersen-Rasch (2004: 144) gives the contrastive pair in (12) which illustrates the difference between assumption (a.) and prediction (b.); the paraphrases in the translations are mine.

(12) a. *Erol gezi-ye gel-ir-Ø-Ø*
Erol excursion-DAT come-DISP-PRS-3
'Erol should be coming to the excursion.' (making a claim about Erol)
'Erol is going to come to the excursion, I guess.'
'Erol usually comes to excursions.'

b. *Erol gezi-ye gel-ecek-Ø-Ø*
Erol excursion-DAT come-PROSP-PRS-3
'Erol will come to the excursion.' (stating a fact, e.g. his name is on the list)

Second, the prospective can express **epistemic** modality, that is a strong assumption or a non-future prediction, as illustrated by (13).

(13) A.– *Zarf-lar neredede-Ø-Ø?*
envelope-PL where-PRS-3
'Where are the envelopes?'

B.– *İkinci çekmece-de ol-acak-lar-Ø-Ø*
second drawer-LOC be-PROSP-PL-PRS-3

‘They’ll be in the second drawer.’ (ie. when you look, they’ll be there)

In contrast to the dispositive, the epistemic use of the prospective expresses not only a probability, but a prediction whose verification is anticipated. In other words, what is located in the future is not the state of affairs itself, but its verification (cf. Martin 1987: 117). There is, admittedly, some overlap between the functions of the two markers, so that the difference is often only one of degree, expressing more or less certainty (cf. also Johanson 1994: 255).

2.3. *Futurity markers combined with present vs. past tense*

The dispositive and the prospective have the widest range of functions when combined with present tense. In order to strengthen my point that they are aspectual and not tense markers, I am now going to provide a short illustration of how these different ‘future’ uses relate to the uses of the same aspectual morphemes in combination with the past. In (14) the past dispositive is found in a situation corresponding to a habitual state of affairs in the past.

(14) *Genellikle iki saat çalış-ır-dı-m.*
usually two hour work-DISP-PST-1SG

‘I would usually work for two hours.’ (Göksel & Kerslake 2005: 331)

Since the dispositive has a virtual flavour, ie. does not refer to a specific actual event, its use in combination with past tense can express counterfactuality, as in (15).

(15) *Ben bu reng-i seç-me-z-di-m.*
1SG D1 colour-ACC choose-NEG-DISP-PST-1SG

‘I wouldn’t have chosen this colour.’ (Göksel & Kerslake 2005: 342)

The past prospective indicates a plan that was relevant at the time of reference; since a completed plan would not normally be indicated by a prospective, use of the past prospective usually implies that the plan did not eventuate; more on this “counterfactuality implicature” (Verstraete 2005: 235) in section 6.3.

(16) *Doktor-a gid-ecek-ti-m, ama vakt-im ol-ma-di-Ø.*

doctor-DAT go-PROSP-PST-1SG but time-POSS.1SG be-NEG-PST-3

‘I wanted to go to the doctor, but I didn’t have time.’ (Ersen-Rasch 2004: 154)

Further evidence for the zero-exponence of present tense in a tense paradigm consisting of present and past tense⁴ comes from non-verbal predicates, which – unlike verbal predicates – cannot be marked for aspect. The comparison of past and present tense marking in (17)-(18) clearly illustrates the paradigmatic opposition between the past tense marker and zero exponence, thus highlighting the present tense meaning of the latter.

(17) *Necla öğretmen-di-Ø*

Necla teacher-PST-3

‘Necla was a teacher’

(18) *Necla öğretmen-Ø-Ø*

Necla teacher-PRS-3

‘Necla is a teacher’

A sentence like (18) could not refer to future time, as when Necla has enrolled at a university to become a teacher, or when she likes teaching her little sister so much that her parents assume she’ll be a teacher. In such cases of future time reference, an aspectually marked predicate with the copula verb *olmak* has to be used. We can therefore conclude that ‘present tense’ is a more precise label for the zero-marking in the tense paradigm than ‘non-past’; the latter label would unnecessarily leave open whether (18) had present or future time reference. As we have seen, it can *only* have present tense reference.

To make this point even clearer, let us compare the marking on the predicative adjectives in (19)-(20) with participial inflection (here with the progressive aspect) in (21)-(22). We can see that they receive the same tense and person marking.

(19) *yorgun-du-m*

tired-PST-1SG

‘**I** was tired’

⁴ There is a third member, *-miş*, which has acquired evidential functions: *Necla öğretmen-miş* ‘Necla allegedly is a teacher’.

(20) *yorgun-Ø-um*

tired-PRS-1SG

'I am tired'

(21) *ok-uyor-du-m*

read-PROG-PST-1SG

'I was reading'

(22) *ok-uyor-Ø-um*

read-PROG-PRS-1SG

'I am reading'

The preceding discussion leads to the conclusion that both markers used for the expression of future time reference have their origin in aspectual marking. Semantically, however, aspectual, temporal, and modal meanings are inseparable. The focus of both exponents is on different parts of the utterance. The term 'dispositive' highlights the fact that by using this form we are usually focusing on a disposition of the subject referent. Ersen-Rasch (2004: 140-141) describes well how the dispositive contrasts with the progressive aspect. The latter focuses on the situation described by the verb, i.e. it highlights properties of the dynamic situation core, whereas the dispositive highlights properties of the subject referent. Lewis (1967: 117) accordingly translates *yap-ar-Ø-im* 'do-DISP-PRS-1SG' as 'I am a doer' and *yaz-ar-Ø-im* 'write-DISP-PRS-1SG' as 'I am a writer (though I may not yet have put pen to paper)'. This emphasis on the subject referent takes the focus off the situation itself, thus creating a distance between the speech situation and the situation described, which also explains use of the dispositive for polite requests – the addressee is not directly asked to do something but only if they have the disposition to do something. For an overview and a discussion of the functions of *-er* see also Temürcü (2004; 2007).

3. Basque

3.1. Morphological overview

Basque inflection can be divided into synthetic vs. periphrastic inflection, the latter containing an auxiliary in addition to the lexical verb. Most verbs in contemporary Basque can only be inflected periphrastically (cf. Haase 1994: 289; Trask 1998: 318). I will again start with my own analysis of the synchronic facts, but I will give examples of alternative descriptions of relevant inflections in section 3.3.

In the first position of a periphrastically inflected predicate, we find a non-finite form of the lexical verb, marked only for aspect. Tense, mood, and the distinction between realis and irrealis are expressed by the auxiliary following the lexical verb. For the sake of simplicity, we ignore the person-marking on the auxiliary; it is sufficient to point out that subject, direct and indirect object are cross-referenced. In glosses, ‘>’ is a shortcut to indicate the morphological order of the exponents of A (cross-referencing or representing an ergative marked NP) and O (cross-referencing the second core argument of a transitive clause, which is in absolutive case), i.e. the order is either A>O or O<A. When there is no ‘>’ or ‘<’, the cross-referenced argument is S, i.e. an intransitive subject.

Allomorphs in the aspect slot are morphologically determined by the verb class (such complementary distribution is signalled by ~ in Table 3), whereas different morphemes in the category “mood” express different valencies. The reader should be aware that the overview in Table 3 is a simplification: The elements do not always occur in that order and are not always as easily segmentable.

category	lexical verb		auxiliary		
	stem	aspect	tense	mood	reality
terms exponents		perfective <i>-i~tu~n</i>	present <i>d-</i>	indicative <i>-a-, -u-</i>	realis <i>-∅</i>
		imperfective <i>-t(z)en</i>	past <i>z-</i>	subjunctive <i>-adi-, -eza-</i>	irrealis <i>-ke</i>
		prospective <i>-iko~tuko~ngo</i>	hypothetical <i>l-</i>		
		neutral <i>(-∅)</i>			

Table 3. *Basque predicate structure (simplified)*

In periphrastic inflection, the lexical verb appears as a participle inflected only for aspect: perfective (*tu~i~n*), imperfective (*ten~tzen*), and prospective; the latter is made up of the perfective participle followed by the suffix *-ko~go* (or *-(r)en*, the two suffixes are allomorphs in a complex distribution; see Hualde & Urbina 2003: 200). The three terms of the aspectual system combine, in theory at least, with the three terms of the tense system, i.e. present, past, and hypothetical. In modern Basque, however, the combinations perfective hypothetical and imperfective hypothetical are considered archaic, and their functions have been taken over by other aspect-tense constellations.

Table 4 illustrates the possible combinations and gives approximate English translations. The auxiliaries in the examples all have third person singular subject and direct object referents. The corresponding third person singular pronouns (he, him, she, her, it) will be omitted from the translations.

auxiliary participle	present	past	hypothetical
perfective	<i>ikusi du</i> 'has seen'	<i>ikusi zuen</i> 'saw'	<i>(ikusi luke)</i> 'would have seen' (archaic)
imperfective	<i>ikusten du</i> 'sees'	<i>ikusten zuen</i> 'used to see'	<i>(ikusten luke)</i> 'would see (now)' (archaic)
prospective	<i>ikusiko du</i> 'will see'	<i>ikusiko zuen</i> 'would have seen' 'was about to see'	<i>ikusiko luke</i> 'would see'

Table 4. *The Basque tense-aspect system*

In addition to these three participles, there is an aspectually neutral form consisting of the verb stem, which for the verb 'to see' is *ikus*. Verbs taking the perfective aspect allomorph *-n* keep it in the neutral form, as e.g. *egon* 'to be' in (23). This aspectually neutral form is used with auxiliaries in subjunctive mood, where aspectual distinctions are neutralized. The auxiliaries can also be inflected for mood (indicative vs. subjunctive) and realis vs. irrealis. Irrealis forms contain the marker *-ke*, which following Basque descriptive tradition (see e.g. Allières 1979: 63, Haase 1992: 103, Trask 1997: 222, Hualde & Urbina 2003: 217) will be glossed as 'potential'. Basic transitive and intransitive forms of the auxiliaries with cross-reference to 3rd person singular arguments are listed in Table 5.

		realis		irrealis	
		indicative	subjunctive	indicative	subjunctive
present	intr.	<i>da</i>	<i>dadin</i>	<i>dateke</i>	<i>daiteke</i>
	tr.	<i>du</i>	<i>dezan</i>	<i>duke</i>	<i>dezake</i>
past	intr.	<i>zen</i>	<i>zedin</i>	<i>zatekeen</i>	<i>zitekeen</i>
	tr.	<i>zuen</i>	<i>zezan</i>	<i>zukeen</i>	<i>zezakeen</i>
hypothetical	intr.	<i>balitz</i>	<i>baledi</i>	<i>litzateke</i>	<i>liteke</i>
	tr.	<i>balu</i>	<i>baleza</i>	<i>luke</i>	<i>lezake</i>

Table 5. *Mood and realis distinctions in Basque*

3.2. Formal and semantic properties of futurity markers

Elliott (2000: 56) defines the function of ‘irrealis’ marking as “identifying the status of an event as [...] existing only as a conceptual idea, thought, or hypothetical notion”. The Basque irrealis fits in well with this definition, as the potential marker *-ke* characteristic of irrealis forms appears in a wide range of contexts having in common a certain distance from reality, such as epistemic assumption (23), conditional (24), and possibility or ability (25)-(26); see also Rebuschi (2009: 753). We are going to look at epistemic use first: In (23), the periphrastic predicate is *egon daitezke*, the auxiliary being *daitezke*.

(23) *Su-hiltzaile-en iturri-ek adieraz-i zuten-ez,*
 fire-killer-GEN.PL source-ERG.PL declare-PFV PST(REL).3PL>3SG-INSTR

10.000 hildako inguru egon daitezke
 10,000 dead around be PRS.SUBJ.3PL.POT

World Trade Center-reko hondakin-en artean.

World Trade Center-MR ruin-GEN.PL among

‘According to statements by the fire brigade, there might be about 10,000 dead bodies among the ruins of the World Trade Center.’

(*Euskaldunon Egunkaria* 13/09/2001)

Next, we will have a look at a conditional example; cf. also (31). As explained above (see Table 4), a conditional main clause predicate is a fossilized combination of a prospective participle with a hypothetical potential auxiliary.

(24) *Bat aurki-tu ba-nu, eros-i-ko nuke.*
 one find-PFV COND- HYP buy-PFV-PROSP HYP.POT
 1SG>3SG 1SG>3SG
 ‘If I found one, I’d buy it.’ (King 1994: 261)

Example (25) shows the auxiliary *dezake* containing the potential marker *-ke*, which here expresses ability.

(25) *Hori edo-nor-k egin dezake.*
 D2.SG(ABS) any-who-ERG do PRS.SUBJ.POT.3SG<3SG
 ‘Anybody can do that.’ (Zubiri 1994: 248)

In (26), we have an example from classical Basque, with a synthetically inflected predicate. While the synthetic form without the potential marker, *dago* ‘is’ (from the verb *egon* ‘be’) is still used in present-day Basque, a corresponding potential form such as *dagoke* ‘can be’ is clearly archaic; a periphrastic predicate as in (23) would be used instead. Note also that the modal particle *ezin* ‘cannot’ used to combine with a potential form in *-ke*, leading to a somewhat redundant encoding of modality. For the diachronic development of possibility expressions in Basque, see Jendraschek (2003; 2010).

(26) *Gure gogo-a ezin dago-ke gogoeta gabe;*
 POSS.1PL spirit-DET NPOT be-POT thought without
 PRS.3SG

ezin gaute-ke, zerbait-etan pensa-tu gabe.
 NPOT be-POT something-LOC think-PFV without
 PRS.1PL

‘Our spirit cannot exist without thought;
 we cannot exist without thinking of anything.’ (Axular 1643, *Gero*)

While these three functions – epistemic assumption, conditional main clause, possibility/ability – still involve use of *-ke* in present-day Basque, the expression of futurity by means of *-ke* is archaic; see Rebuschi (2009: 753-760) for details. This explains why the construction in (27)-(28) is sometimes called ‘archaic future’ (e.g. in Zubiri & Zubiri 2000: 440). In the archaic future, the auxiliary could combine with different participial forms. In (27), we see it combined with a prospective participle, producing what Lafon (1972/1999: 517) called a “double future”.

(27) *Orduan justo-ek argi-tu-ren dukeite*
 then just-ERG.PL shine-PFV-PROSP PRS.POT.3SG<3PL

iguzki-a-k bezala, bere Aita-ren resuma-n.
 sun-DET-ERG like POSS.3SG father-GEN kingdom-LOC

‘Then the righteous will shine like the sun in the kingdom of their Father.’

(Leizarraga 1571, *Testamentu Berria*)

These days, there is only one dialect, Zuberoan, the most Eastern dialect also known as Souletin after the French name of the area, where this construction still indicates future (28); cf. Rebuschi (2009: 762).

(28) *Dagiün abentüa-ren 5-ean dateke*
 next December-GEN five-LOC PRS.POT.3SG

erabaki-a har-tü-rik.
 decision-DET take-PFV-PRTV

‘The decision will be made on the 5th of December’

(*herriak.info* 26/10/2001)

In modern Standard Basque, an innovative periphrastic construction with the prospective aspect marker *-ko* is used. The prospective participle can combine with either present (29), past (30), or hypothetical ‘tense’ (31); these are the glossed versions of the last line of Table 4.

(29) *ikus-i-ko du*
 see-PFV-PROSP PRS.3SG<3SG
 ‘will see’

(30) *ikus-i-ko zuen*
 see-PFV-PROSP PST.3SG<3SG
 ‘would have seen’

(31) *ikus-i-ko luke*
 see-PFV-PROSP HYP.POT.3SG<3SG
 ‘would see’

It is the periphrastic construction consisting of the prospective participle and a present tense auxiliary in (29) which has come to express futurity in most modern varieties of Basque, restricting *-ke* to its modal functions. Note that the counterfactual meaning of the prospective past in (30) reveals the modal implications of prospective marking. This semantic development is very similar to that of the Turkish past prospective in (16). Further note that the hypothetical prospective in (31) (and (24)) has no counterfactual meaning, but leaves the outcome open. We will get back to the development of counterfactual meanings from past prospectives in section 6.3.

3.3. *Alternative descriptions*

The replacement of synthetic verbs with analytic predicates has led to a clear morphological distinction between aspectual values expressed on the lexical verb (perfective, imperfective, prospective, and neutral) and tense distinctions (present, past, and hypothetical), which are expressed on the auxiliary (Jendraschek 2010: 5). The label ‘future tense’ therefore seems particularly inappropriate for a marker integrated into a paradigm which for the rest consists of aspectual markers. Nor does it seem felicitous to label this marker ‘future aspect’, as done in King (2009: 461; 473), who, admittedly, makes use of a fair number of scare quotes to convey his own misgivings about this terminological choice.

The problems resulting from failure to distinguish between future and prospective are essentially the same as in Turkish, except that in Basque present tense is not zero-marked, but clearly recognizable by the initial *d-* of the auxiliary in 3rd person absolutive position. One such problem is that a periphrastic predicate would be marked for two tenses at the same time, such as future and present (glosses suggesting such “double tense” predicates can be found e.g. in Haase 1994: 281 or Jendraschek 2007: 137). Rijk (2008: 143) offers a relatively systematic analysis, but also has the double tense labels ‘(present) future’ vs. ‘past future’, consisting of a ‘future participle’ and a present or past tense auxiliary. The same analysis is found in Jansen (2002: 140). Lafitte (1944/2001: 375-376) opposes a ‘futur du présent’ to a ‘futur du passé’. In other sources, the labelling seems to follow conventions of the meta-language, e.g. *ikusiko nuen* ‘I would have seen’ described as a ‘modo condicional pretérito (indicativo)’, containing a ‘nombre verbal futuro’ *ikusiko* (Lasa 1960/1972: 192). Altuna & Azkarate (2001: 196) use the Basque term ‘etorkizuneko partizipioa’, which translates as ‘participle of the future’. Zubiri & Zubiri (2000: 408) write that *-ko* forms set the event in the future, but acknowledge that such aspect forms have nothing to do with tense, as the latter is expressed on the auxiliary. A similar argumentation is found in Bendel (2006: 164),

who while using the traditional term ‘future’ acknowledges that in Basque the future is less of a tense, but rather an aspect. However, the term ‘prospective’ is used in Rebuschi (1997: 151) and (2009: 748), as well as in various sections in Hualde & Urbina (2003), often together or interchangeably with ‘future’ (e.g. page 195: ‘the prospective or future participle’, page 260 : ‘Prospective present or future tense’). In my view, Trask (1997: 103) sums it up best: “There is also a future participle, or perhaps better a prospective participle, which is formed by adding *-ko* or *-en* to the perfective participle”.

4. Iatmul

4.1. Morphological overview

Finally, we will have a look at the Papuan language Iatmul (Ndu family, East Sepik Province, Papua New Guinea; see Jendraschek 2009a, 2009b, 2009c). Figure 1 schematizes the structure of Iatmul verbal main clause predicates (the morphosyntax of nominal predicates is quite different, see Jendraschek 2009a: 352).

-2	-1	1	2	3	4	5	6
NEGATION	MANNER	ROOT(S)	DIRECTIONAL	EVENT-SPECIFIER	ASPECT	TENSE/MOOD	S/A

Figure 1. *Basic template for Iatmul verbal morphology*

The aspectual paradigm consists of only one marker, namely *-ti’~li’* for imperfective aspect, which has grammaticalized from a homophonous verb meaning ‘stay; exist; be; have’. We will however see innovative constructions expressing prospective aspect in (38)-(41). In the following, we are concerned with the tense-mood markers in slot 5 of Figure 1. In verbal main clauses, past tense is marked by zero, present tense is marked by *-a~ka* (allomorphs in phonologically conditioned distribution), and irrealis is marked by *-(i)kiya*. The latter can be identified as a marker of futurity.

4.2. Formal and semantic properties of futurity markers

The irrealis marker *-(i)kiya* not only covers future time reference (32), but also deontic modality in (33)-(34), and hypothetical statements, as in (35)-(37). This functional range is the reason for glossing it ‘irrealis’, rather than ‘future’ (as done e.g. in Staalsen 1972 and Jendraschek 2009a). In (32), *-kiya* refers to an event located in the future with respect to the moment of speech.

(32) *namei-kat yi-ka wakala-kiya-wun wun-a naabi-kat*
 mother-DAT go-DEP ask-IRR-1SG 1SG-GEN year-DAT
 ‘I will go and ask my mother about my age’ (a child asked about their age)

Note that clause linkage in Iatmul functions on a switch-reference basis (see Jendraschek 2009b); since the two clauses in (32) have the same subject referent, the verb form *yika* ‘going’ in the first clause cannot be marked for tense. Instead, it carries the clause-linking suffix *-ka* indicating that the following clause will have the same subject referent.

The next two examples illustrate deontic use. In (33), *-ikiya* does not just express reference to an event that would be located in the future, but conveys a deontic attitude of the speaker. (34) is a similar case, since the speaker does not know, and does not want to express, whether I really *will* be saying something, but rather encourages me to say it. These interpretations depend on the context in which such sentences are uttered.

(33) *ka’ik ana kla-ikiya-mi’n*
 picture NEG get-IRR-2SG.M
 ‘you can’t/must not take photos’
 (said to me before entering an initiation ceremony)

(34) *wa-ikiya-mi’n*
 say-IRR-2SG.M
 ‘you can say it’ (when asking whether some expression is well-formulated)

So far, one could still argue that the deontic use is just an extension, or implication, of future tense, as “a prediction about the future can easily be understood as an obligation” (Timberlake 2007: 306). However, examples (35)-(37) show that *-(i)kiya* also appears on predicates referring to events that are not located after the speech event. This is what happens in conditional constructions. Whether the event expressed in the main clause is counterfactual or possible, and whether it is located in the past, the present or the future, is not visible from the verb form in the conditional main clause, which has the same morphological make-up in all three examples.

(35) *babla gepma-ba li’-kiya-w-a-n vi’-kiya-wun*
 today village-LOC stay-IRR-1SG-SR-NR see-IRR-1SG
 ‘if I were in the village today, I would see it’

(36) *saanya kla-j-ay-a-n nyigi gu kla-ikiya-di*
 money get-3PL-IRR-SR-NR bitter water get-IRR-3PL
 ‘if they get money, they will buy beer’

(37) *saanya kla-ikiya-j-a-n nyigi gu kla-ikiya-di*
 money get-IRR-3PL-SR-NR bitter water get-IRR-3PL
 ‘if they had received money, they would have bought beer’

The Iatmul irrealis is thus similar in its functional range to the potential mood of Kayardild, which covers predicted future events, ability, obligation and volition (Evans 1995, cited in Timberlake 1987: 328). This cross-linguistic similarity further supports my description of the Iatmul irrealis forms.

In addition to the irrealis suffix, Iatmul has innovative periphrastic constructions for a more imminent and certain future (38). The development of a periphrastic construction for the expression of futurity is a parallel to the Basque scenario.

(38) *yi-vaak yi-ka-wun > yi-veeka-wun*
 go-NR go-PRS-1SG go-PROSP-1SG
 ‘I’m going to go’

Formally, the example in (38) shows the contraction of three morphemes – a nominalizer, the verb ‘go’, and the present tense marker – to a single morpheme, yielding an innovative prospective suffix. Both the complex source construction as well as the synthesized inflection are in use in contemporary Iatmul. Semantically, the Iatmul prospective expresses that the subject referent is about to do something, so (38) could be said when the speaker is getting up from the floor in order to leave the house.

The two other periphrastic inflections with future time reference are the combination of the nominalized verb with the auxiliary *ti’* ‘stay’ in (39), and the more grammaticalized construction with a dative marked verb in (40). The most plausible reconstruction for the form *yikatti’kami’n* is shown in (41).

(39) *yi-vaak ti’-ka*
 go-NR stay-DEP
 ‘when ready to go’

(40) *mi'n-kak klokkali-ka agwak-ba kwakla-wun mi'na*
 2SG.M-DAT take.up-DEP up-LOC leave-1SG as.soon.as

yi-katti'ka-mi'n wa-li'
 go-PROSP-2SG.M say-3SG.F
 ‘‘When I take you and leave you up there, you will go’’, she said’

(41) *yi-vaak-kat ti'-ka-mi'n*
 go-NR-DAT stay-PRS-2SG.M
 ‘you will go’

Semantically, there are no important differences between the *-veeka* and the *-katti'ka* prospective, which is not surprising given that these are merely two reflexes of a common source construction combining a nominalized form of the lexical verb with an auxiliary.

5. Conflation of tense-aspect distinctions

Interestingly, both Turkish and Iatmul have a reduced system in (some) subordinate clauses, which conflates the non-future/realis categories, but leaves the future/prospective/irrealis category relatively intact.

5.1. Turkish

We are first going to have a look at those Turkish relative clauses that have a two-way basic tense-aspect distinction, which is different from the present vs. past distinction of main clause predicates. Turkish relative clauses are characterized by suffixal nominalization. The markers under discussion are *-dik* (and its phonologically conditioned allomorphs such as *-duđ-* etc.), and *-(y)ecek* (and allomorphs such as *-yacađ-*). The Turkish examples in this section are taken from Göksel & Kerslake (2005: 451-454), but glosses and analysis are largely mine. In (44)-(45), I have changed the subject of the relative clause from 1SG to 2SG to avoid surface identity with main clause prospective forms.

Turkish: Non-Future, present time reference

(42) *đu sira-da oku-duđ-um roman*
 D2 time-LOC read-NFUT.NR-POSS.1SG novel
 ‘the novel I am reading at the moment’

Turkish: Non-Future, past time reference

- (43) *geçen hafta bitir-diğ-im roman*
last week finish-NFUT.NR-POSS.1SG novel
'the novel I finished last week'

The Turkish relative clauses with prospective nominalization neutralize the opposition between present prospective (44) and past prospective (45); cf. Göksel & Kerslake (2005: 451) and the translation of example (47) below. The label 'prospective' therefore seems once again more appropriate than 'future'.

Turkish: Prospective, future time reference

- (44) *yarın oku-yacağ-ın makale*
tomorrow read-PROSP.NR-POSS.2SG article
'the article that you are going to read tomorrow'
(corresponding main clause verb form: *oku-yacak-Ø-sin* 'read-PROSP-PRS-2SG')

Turkish: Prospective, past time reference

- (45) *Dün oku-yacağ-ın makale-yi ancak bugün oku-yabil-di-n*
yesterday read-PROSP.NR-POSS.2SG article-ACC only today read-POT-PST-2SG
'the article that you were to read yesterday, you managed to read only today'
(corresponding main clause verb form: *oku-yacak-tı-n* 'read-PROSP-PST-2SG')

This opens up the question whether the nominalizing suffix *-duğ* in (42)-(43) is more suitably labelled 'non-future' or rather 'non-prospective'. The problem is complicated by the fact that *-tiğ-* and *-ecek* are not exactly parallel. The latter, the prospective marker, can appear on the lexical verb in a periphrastic predicate of a relative clause, and therefore in an aspectual slot. In contrast, the former is (a) limited to the head part of such a complex predicate, and (b) morphologically related to the past tense marker *-ti*. Example (46) shows the prospective participle form *alacak* (*-acak* being an allomorph of *-ecek*) combined with the verb form *oldukları* (same suffix as in (42)/(43)) constituting the nominalized predicate head of the relative clause.

Turkish: Present prospective=Past prospective, periphrastic

- (46) *arkadaş-lar-ın al-acak ol-duk-ları televizyon*
friend-PL-GEN take-PROSP be-NFUT.NR-POSS.3PL television
'the television that the friends are/were going to buy'

Having identified the marking of the first verb as prospective, the label ‘non-prospective’ for the marking on the predicate head would lead to a ‘non-prospective prospective’, a constellation that sounds even more nonsensical than ‘future in the past’. I will therefore retain the label ‘non-future’. According to Göksel & Kerslake (2005: 453), (46) is “identical in meaning” to (47), which contains a simple predicate.

Turkish: Present prospective=Past prospective, simple

(47) *arkadaş-lar-ın al-acak-ları televizyon*
 friend-PL-GEN take-PROSP.NR-POSS.3PL television
 ‘the television that the friends are/were going to buy’

We here ignore the question whether, and to what extent, the two instances of *-acak* in (46) vs. (47) differ in their degree of nominalization. The crucial point is that present tense has zero exponence in main clause predicates but not in relative clause predicates, where past tense marking is pressed into service to act as a host for the possessive markers. As a consequence, the relation between aspectual and temporal markers, which we managed to disentangle for main clause predicates, becomes less transparent in relative clause predicates, where the most basic opposition is prospective vs. non-future nominalization.

5.2. *Iatmul*

Iatmul exhibits a very similar phenomenon, except that here it is past tense which has zero exponence in main clause predicates. Yet, as in Turkish, it is the past-tense marking which is pressed into service for the expression of both past and present time reference in nominalized predicates, as can be seen in (48).

Iatmul: Realis

(48) *yi-m-Ø-a-n*
 go-2SG.M-REAL-SR-NR
 ‘when you go/went’

Iatmul: Irrealis

(49) *yi-m-ay-a-n*
 go-2SG.M-IRR-SR-NR
 ‘when/if you go’

Since the irrealis marker *-ay*, an allomorph of *-kiya*, is not limited to the expression of future time reference, and is not a prospective like *-ecek~acak* in Turkish, the most fitting labels for the conflated TAM values of Iatmul are ‘realis’ vs. ‘irrealis’.

6. Functional overlap in synchrony and diachrony

6.1. Future between prospective and irrealis

An irrealis proposition “prototypically implies an event belongs to the realm of the imagined or hypothetical, and as such it constitutes a potential or possible event but it is not an observable fact of reality”, with language-specific irrealis markers being “the grammaticalised expression of location in [...] some unreal world” (Elliott 2000: 67). As demonstrated for Basque *-ke* and Iatmul *-kiya*, future time reference can be a subdomain within irrealis (but this is not universally so, cf. Elliott 2000: 68).

Future time reference constitutes an area of overlap between tense and reality marking. It locates an event at a point in time ahead of the speech situation, but by doing so it anticipates a world that is not yet real (cf. de Haan 2010: 455). Note that an unreal, anticipated and imagined state of affairs does not necessarily imply uncertainty. I can utter with absolute certainty *Five hundred years from now I'll be dead*, even though I am talking about something that is not real, for I am alive while I am saying it. This conceptual independence of future time reference and uncertainty is also reflected in the grammar of a number of Australian languages, where future events “which are thought of as certain to occur tend to attract realis marking, while events about which there is some element of doubt are perceived as potential and are marked irrealis” (Elliott 2000: 71).

The tendency of future-time markers to be enclosed in the broad domain of irrealis makes them diachronically unsuitable for the expression of future events that are felt to have a closer connection with the reality of the speech situation, such as intentions. For these, prospective constructions emerge.

6.2. Prospective between present and future

A common cross-linguistic difference between future and prospective expressions is that the latter presuppose “already present seeds of some future situation, which future situation might well be prevented from coming about by intervening factors” (Comrie 1976: 65; see also Fleischmann 1983: 190). Cross-linguistically, the contexts for present prospectives overlap with simple present or present progressive, as they imply a “preparatory context” or “an element of planning” (Dahl 2000: 313) which is already in place at the time of speaking. Where a dedicated future tense simply predicts a state of affairs, the present (simple or progressive) can refer to preparations for an event

(Comrie’s “seeds”), whereas the (present) prospective signals that while the preparations are actual at the time of speech, the outcome is an extrapolation.

The difference between prediction and extrapolation also underlies the difference between the synthetic Romance future and the analytic *going to* (“de-andative”) prospective (Dahl 2000: 315). The future is favoured for remote 3rd person predictions, whereas the prospective is favoured for the expression of more “immediate” intentions, typically with first person subject referents. The difference between “remote” and “immediate” is however not an instance of metrical tense⁵. The future appears more remote because it is disconnected from the present; and it is thus fair to say that the impression of remoteness created by future tense is epiphenomenal rather than definitional. In comparison, the present prospective appears more immediate simply because it is *present tense*, and what may appear like an “immediate future” is not a future in the first place, but a pre-state, much like a volcano showing the typical signs of an imminent eruption. Moreover, the temporal distance between the pre-state and the resulting event itself need not be small, as pointed out by Fleischmann (1983: 188-189). At the same time, the prospective nature explains the affinity with first person subjects, as saying about oneself that one is prepared to do something is easier than making claims about the preparedness of others.

Yet these differences can only be established when a present prospective contrasts with a future tense as in French, but seem neutralized in Turkish and Basque, where the present prospective is “pressed into service” for future time reference, so that present prospective and simple(x) future are semantically conflated. This would explain why Dahl (2000: 319) writes that the evidence for the existence of prospective constructions “as distinct from early futures in general is somewhat shaky”. While it seems unfortunate that he included Western European languages which still have a synchronic opposition between (older) future constructions and de-andative prospectives, present prospectives can admittedly “grammaticalize” into futures.

In fact, there is a crucial but often overlooked difference, which equally holds for French, English, Turkish, and Basque, namely the possibility of a past prospective which has no (synthetic or analytic) “past future” equivalent. Whereas the difference between French *je vais le dire* ‘I’m going to say it’ and *je le dirai* ‘I’ll say it’ may be subtle and gradual, the difference between *j’allais le dire* ‘I was going to say it’ and *je le dirais* ‘I would say it’ or *je l’aurai(s) dit* ‘I will/would have said it’ seems obvious. How clearly we can establish a language-specific distinction between prospective and future depends thus to a large extent on the available oppositions in the language. The

⁵ For a compact overview of metrical tense systems, see e.g. Binnick (2001: 560-561).

distinction is clearest if a present prospective contrasts with a simple future and/or a past prospective. Loss of such contrasts will favour the grammaticalization of a prospective to a future, a process analogous to a present perfect (or “retrospective”) evolving into a past tense, cf. Fleischmann (1983).

6.3. Past prospective between future-in-the-past and past conditional

Now the interesting thing is that in both Turkish and Basque, the past prospective takes over the functions of a counterfactual conditional in the past, in other words, covers not only *was going to say* but also *would have said*, where the second meaning is a semantic extension of the first. In Göksel & Kerslake (2005: 496), we find the following example, reproduced here with adapted glosses and added emphasis as (50).

Turkish: Past prospective with counterfactual meaning

(50) *Temmuz-da gel-ebil-se-ler-di*

July-LOC come-POT-COND-3PL-PST

biz on-lar-ı bir hafta gez-dir-ecek-ti-k.

1PL 3-PL-ACC one week wander-CAUS-PROSP-PST-1PL

‘If they had been able to come in July,

we **were going to** take them sightseeing for a week’

Göksel & Kerslake (2005: 496) stick with the *going to* construction in their English translation, and are careful to point out that the past prospective is not the only way to express a counterfactual apodosis. While the past dispositive would be the preferred form, the arguments brought up in what follows with regards to the counterfactual implications of the past prospective would be applicable in an analogous way to the dispositive aspect, as used in (15).

The past prospective in conditional contexts implies “a firmly planned action, a scheduled event, or a situation regarded for some other reason as certain to have resulted if the condition had been fulfilled” (Göksel & Kerslake 2005: 496). While a translation of (50) using a conditional *we would have taken them* sounds even more natural in English, the point made by Göksel & Kerslake is interesting and relevant, as it suggests that the Turkish past prospective has embarked on the grammaticalization path from (past) prospective to (past) counterfactual conditional. This path is analogous to the more familiar path from present prospective to simple future tense (cf. Fleischman 1983). This corroborates the impression that the contrast between *was going to say* and *would have said* found in English or French is being lost in Turkish.

Further evidence for this diachronic path comes from Basque. Here, the periphrastic constructions consisting of a prospective participle and a past tense auxiliary (e.g. *zuen*) have displaced the irrealis forms (where *zukeen* corresponds to realis *zuen*, see Table 5). The a. and b. constructions in (51) are synchronically synonymous, but the a.-version with the irrealis marker *-ke* is considered more conservative (Rebuschi 1997: 150).

(51) a. *Ikus-i ba-lu, har-tu-ko zukeen.*
 see-PFV COND-HYP.3SG<3SG take-PFV-PROSP PST.POT.3SG<3SG

b. *Ikus-i ba-lu, har-tu-ko zuen.*
 see-PFV COND-HYP.3SG<3SG take-PFV-PROSP PST.3SG<3SG
 ‘If he had seen it, he would have taken it.’

The suffix *-ke* was however maintained in conditionals with present time reference, where the prospective participle combines with an auxiliary in “hypothetical” tense, as in (52), taken from Rebuschi (1997: 145).

(52) a. *Ikus-ten ba-lu, har-tu-ko luke.*
 see-IPFV COND-HYP.3SG<3SG take-PFV-PROSP HYP.POT.3SG<3SG
 ‘If he saw it, he would take it.’

The comparison between (51) and (52) suggests that the additional marking of counterfactuality by irrealis forms became redundant, but only in past tense. When introducing the Turkish past prospective in section 2.3, I pointed out that it indicates a plan, and that a *completed* plan would not normally be indicated by a prospective, as per “the implicature of non-actualization” resulting from the Gricean maxim of quantity (Verstraete 2005: 235-236). In other words, it is irrelevant whether the prospective part is eventuating in a future anchored in the past; the focus is rather on a moment in the past where the prerequisites for the event had been established so that it *would have come about if* things had taken their normal course. That the anticipated event did not unfold as intended thus begins as an implicature of past prospectives, but may ultimately result in the loss of more explicit constructions through conflation of past prospective with past conditional meanings, as has happened in Basque. Likewise, Rebuschi (1997: 151) explains the loss of *-ke* in past conditional main clauses such as (51.b) by pointing out that the condition (expressed in the protasis, or in the context) has not been fulfilled, so “the certainty concerning the unfolding of its consequence can

only be negative” (my translation⁶).

It is interesting that the counterfactual meaning, which in Turkish and Basque emerges from the combination of prospective with past, is also a frequent outcome of the combination of irrealis markers with past tense. In both cases, the counterfactual meaning is not the result of semantic compositionality, but a conventionalized “implicature of a more basic meaning of past potentiality” (Verstraete 2005: 241), “deriving from a clash between a modal element that encodes potentiality and a tense element that implies certainty” (p. 237).

7. Conclusions and theoretical implications

The main goal of the paper was to demonstrate that the label ‘tense’ is problematic for those markers of future-time reference which are morphologically and/or semantically akin to aspectual and modal categories. “Tense locates an event with respect to the here-and-now of speech” (Timberlake 2007: 315), whereas the prospective in Turkish and Basque, as well as the irrealis of Iatmul, have different basic meanings, with future time reference starting as a conventionalized inference in appropriate contexts.

The paper has also confirmed various claims made in the literature:

(a) The Turkish dispositive is an example where the same morpheme can express habitual as well as modal categories, as it makes reference to “unactualized events” (De Haan 2010: 452).

(b) Aspect morphemes are found closer to the verb root than tense morphemes in Turkish, Basque, and Iatmul. And in both Turkish and Basque, aspect is marked only on the participial forms of verbs, whereas tense is a category of all predicates.

(c) The combination of past and potentiality marking (be it prospective or irrealis) produces counterfactual meanings.

The conceptual independence of tense, aspect, and mood is useful both for structural as well as functional reasons. The definition of tense as a primarily structural category whose functional counterpart is temporality (or time reference), and the observation that there is no biuniqueness between structural and functional categories, are both trivial truths. Bertinetto & Delfitto (2000: 190) claim accordingly that tense is a purely morphological device, and that “all tenses (without exception) have both temporal and aspectual properties”. Tense is compared to nominal inflection, where case, gender, and number may be expressed cumulatively. An example of an exponent which represents a TAM combination is the ‘imparfait’ in French, which corresponds to a combination of imperfective aspect with past tense, but is also used for counterfactual or hypothetical

⁶ “la certitude concernant le déroulement de sa conséquence ne peut être que négative”

conditionals (cf. Bertinetto & Delfitto 2000: 190 and Jendraschek 2007: 98; 298-301), thereby combining aspectual, temporal, and modal functions in a single form.

Yet while case and number may be expressed cumulatively on nominal expressions, a language like Turkish keeps them well apart, having first a morphological slot for number, followed by the slot for case. The same is true for aspect and tense, which are marked on most main clause verb forms in that order. And my point is precisely that the Turkish aspect markers have no temporal properties. Failure to recognize the zero-marking of present tense is comparable to the non-recognition of the zero-marking of the nominative in the Turkish case paradigm, and it would lead to the erroneous claim that the plural marker *-lar* on the subject noun phrase *Amerika'lular* 'Americans' in (6), here repeated for convenience as (53), cumulatively expresses plural and nominative. However, such a claim is not motivated at all by Turkish morphology, so the nominative is better represented as a zero-morpheme, added in (53) for clarity.

- (53) *Amerika-lı-lar-Ø* *çok* *siit* *iç-er-Ø-Ø*
America-ADJR-PL-NOM much milk drink-DISP-PRS-3
'(The) Americans drink a lot of milk.' (Göksel & Kerslake 2005: 340)

Moreover, number and case have two very different syntactic functions, and their cumulative expression is comparable to that of tense with subject cross-reference, as for example found in many verbal paradigms of Romance languages, and it is not clear why a cumulative expression of tense and aspect would nullify the distinctness of their significata, whereas that of tense/aspect with subject cross-reference would be treated differently.

The separate treatment of aspect and tense exponents is therefore particularly motivated where languages have different slots, as in Turkish. The distinction is also useful for English, which uses analytic constructions for aspectual and modal categories, but synthetic morphology for tense (cf. Carter & McCarthy 2006: 405). This entails that the 'future' is considered to be modal in English; Huddleston & Pullum (2005: 56) claim accordingly that "English [...] has no future tense".

The conceptual and in some languages morphosyntactic independence of aspect, tense, and mood does not mean, however, that they are not connected in a functional macro-domain. And the analogy between the nominal and the verbal domain that comes to mind here is the concept of reference. Reference can remain vague and uncertain, or it can be narrowed down as we "zoom in" on the participants and the situation. In other words, we adopt a certain perspective on how the participants and the situation are construed; for similar uses of the term 'perspective' as a cover term for TAM semantics,

see Jendraschek (2007: 67); King (1993: 91-93); Johanson (1994: 249-251) and Fleischmann (1983: 185).

When a propositional content is transformed into a contextualized utterance, a certain perspective is thus adopted, both on the participants and on the predicate representing the situation core. The appropriate terminology would thus be that we have a PARTICIPANT PERSPECTIVE and a SITUATION PERSPECTIVE. How close we zoom in on a participant determines how individuated it will be, whether it is irrelevant, generic, indefinite, definite, or specific. And just as individuating a participant by selecting a closer perspective involves a priori conceptually independent properties such as animacy, number, and definiteness (see Hopper & Thompson 1980: 253 for a list), the situation perspective involves tense, aspect, and different kinds of modal categories.

The closest perspective on the situation is expressed by aspect, as it allows to go inside the temporal structure of the situation, presenting it as completed, ongoing, about to begin, and so on. As we zoom out, we can see the relation between the situation and some other situation adopted as reference point. The default reference point is the deictic centre of here and now, and the grammaticalized expression of that relation is known as tense. As we zoom out further, we are able to compare the depicted situation to other situations, potential or real, and relate it to the properties and roles of participants, as expressed by modal categories such as ability and obligation. We may zoom out even further, and relate the situation to knowledge; we do not any longer relate different components of the situation to each other, but we relate the situation to a meta-situation, a relation known as epistemic modality. The latter includes counterfactuality, the knowledge that a situation is imaginable, but not real.

The passage from lower to higher abstraction, that is from aspect to tense, from tense to mood, and from participant modality to epistemic modality is well documented in the literature on the grammaticalization of predicate morphosyntax; in particular, see Fleischmann (1983) and Bybee, Perkins & Pagliuca (1994) and the references therein. All the stages of this ‘perspective shift’ can actually be reconstructed for Basque. According to this reconstruction, the current irrealis forms in *-ke* originated as a future, while the periphrastic prospective in *-ko* (“near future” in Haase 1994: 289) has taken over the futurity domain, and with the shift of all irrealis forms into the modal domain, previously attested epistemic forms were pushed out of the system, and the originally non-epistemic irrealis forms took over their functions as well; for the details see Lafitte (1944/2001: 269-380); Haase (1994: 289-290); Trask (1997: 224-225); a more substantial summary can be found in Jendraschek (2007: 239-242).

In the light of the synchronic and diachronic evidence presented in this paper, aspect, tense, and mood should be defined as prototype categories within the macro-category

‘situation perspective’. They are connected by grammaticalization scales, which explains diachronic shift and synchronic overlap between the micro-categories. While aspect is the closest perspective, epistemic modality seems to be the most distant. Prospective aspect, future tense, and irrealis mood are thus different steps on the path to a more abstract situation perspective.

Interlinear morphemic glosses

1	speaker
2	addressee
3	3 rd person
ACC	accusative (case)
ADJR	adjectivizer
AUX	auxiliary
COND	conditional
D	demonstrative
DAT	dative (case)
DEP	dependent (con)verb form
DET	determiner
DISP	dispositive (aspect)
ERG	ergative (case)
FUT	future (tense)
GEN	genitive (case)
HYP	hypothetical (tense)
IMP	imperative
INSTR	instrumental (case)
INT	interrogative
INTR	intransitive
IO	indirect object
IPFV	imperfective (aspect)
IRR	irrealis
LOC	locative (case)
M	masculine
MR	modifier
NEG	negator
NFUT	non-future (tense)
NOM	nominative (case)
NPOT	impossibility
NR	nominalized clause marker
PFV	perfective (aspect)
PL	plural
POSS	possessive
POT	potential (modality)

PROG	progressive (aspect)
PROSP	prospective (aspect)
PRS	present (tense)
PRTV	partitive
PST	past (tense)
REAL	realis
REL	relativizer
SG	singular
SR	subordinate clause marker
SUBJ	subjunctive (mood)

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