

65.–68. Tense and Aspect

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General introduction

The following four maps concern the role of **tense** and **aspect** in the grammars of the world's languages. Traditionally, tense and aspect are seen as **grammatical categories** of verbs. Indeed, insofar as verbs display morphological variation in languages, there is a strong tendency for such variation to include inflectional differences between forms that reflect temporal and aspectual distinctions, such as the difference between the present tense form *sings* and the past tense form *sang* in English. However, some modifications to the identification of tense and aspect with grammatical categories of verbs must be made. To begin with, it has long been recognized that **periphrastic constructions**, such as the English Perfect (*I have sung*) and Progressive (*I am singing*), are employed in functions similar to those of inflections. Furthermore, tense and aspect do not always present themselves as separate and neatly delineated categories, as we shall now argue.

Among the multitudinous definitions of tense and aspect in the literature, we may cite those given in Comrie (1985: 1, 6): tense is “grammaticalisation of location in time” and aspect is “grammaticalisation of expression of internal temporal constituency” (of events, processes etc.). Thus defined, the two categories are conceptually close in that both deal with time. But they may also be interwoven in grammatical systems in that one and the same grammatical form may combine temporal and aspectual elements in its semantics. For instance, the very common and central distinction between imperfective and perfective verb forms would appear to be a straightforward example of aspect; yet it typically involves not only aspectual notions but also restrictions on temporal reference, in that

perfective verb forms are usually taken to refer to past events. This fact has a cognitive basis: we may say that the prototypical uses of perfectives coincide with the default view of an event as a completed whole. But normally such a perspective is possible only if the event is wholly in the past. Therefore, in languages which do not mark the imperfective–perfective distinction, verbs that are typically event–denoting such as ‘arrive’, ‘close’, and ‘kill’ may be interpreted as referring to the past in the absence of any marking to the contrary. Verbs that typically denote states such as ‘sleep’, on the other hand, tend to be interpreted as referring to the present. (In addition, verbs are sometimes indeterminate or ambiguous between referring to a present state or to the event in the past that gave rise to it, e.g. German *er ist gestorben* ‘he is dead’ or ‘he died’).

What has been said here about tense and aspect may also be extended to the closely related category of **mood**. An alternative to seeing tense, aspect and mood as grammatical categories in the traditional sense is to regard tense–aspect–mood systems as wholes where the building–blocks are the individual tenses, aspects, and moods, such as the Past and the Progressive in English. These will be referred to as **grams**, and it is assumed that on the cross–linguistic level they represent a restricted set of **gram types**. This is the approach that will be taken here. In the following, the names of language–specific grams will be capitalized, to distinguish them from gram types, which are written in lower–case characters.

The term **grammaticalization**, as used in the definitions from Comrie cited above, refers to a synchronic property characterizing a notion (semantic category) if and only if it is reflected in or determines the use of grammatical items. Obviously, both location in time and the internal constituency of events may receive linguistic expression in multifarious ways, which are not, however, relevant to the notions of tense and aspect as defined here, as long as they do not play a systematic role in the grammar. For instance, temporal adverbials such as

yesterday or *in 2001* are also used to locate events in time, but they differ from grammatical tense in fundamental ways. While temporal adverbials are used only when they express information which is relevant to the particular intended message, the use of tenses is guided by general principles that often make the choice of a certain tense **obligatory** and that make the use of a tense morpheme obligatory even if the information it carries is redundant. Thus, in a sentence such as *Last year I bought a new car* the choice of a tense other than the simple past would make the sentence anomalous, although the information that the event took place in the past is expressed unambiguously by *last year*.

In the case of aspect, the delimitation of what is grammatical(ized) is more difficult, and further confounded by the lack of a consistent terminology. In some research traditions, the term “aspect” is used to refer to a wide domain of phenomena, including many that are not manifested as grammatical distinctions (cf. for instance Verkuyl (1971), Tenny (1994)). Others make a strict distinction between aspect as a grammatical phenomenon and “Aktionsart” as pertaining to lexical or purely notional (semantic) categories (this tradition goes back to Agrell (1908)). However, among those who make a distinction between aspect and Aktionsart, there is no unanimity as to how the latter term should be used. Especially in Slavic linguistics, the term “Aktionsart”, or its counterpart in other languages (such as *sposob dejstvija* in Russian), is used for phenomena that straddle the borderline between grammar and lexicon, notably various derivational processes by which verbs with specific aspectual meanings may be created. For instance, from the simplex Russian verb *spat’* ‘to sleep’ we may obtain the verb *pospat’* ‘to sleep for a while’ by adding the “delimitative” prefix *po-*. With a more liberal definition of aspect, such processes would be called “derivational aspect”. Although there is considerable variation as to the extent to which derivational aspect is elaborated and used in languages,

relatively little work has been done with the aim of systematizing this variation. In these chapters, we have therefore chosen to focus on grammatical aspect in the narrowest sense, where typological research has already advanced far enough to make it possible to define mappable parameters. However, some areal tendencies may be mentioned here. Derivational aspect (Aktionsart) appears to be particularly well developed in many indigenous North American languages; eastern Europe could be another example of an area where these phenomena are well represented.

Today, “grammaticalization” is probably most often understood in a diachronic sense – as the development of grammatical marking over time, typically from lexical sources. The grammaticalization paths for tense and aspect are relatively well known, at least in the languages for which there is sufficient information about earlier stages (which is certainly not a representative sample of the world’s languages). It has thus, for instance, been established that both pasts and perfectives may arise from perfects, whereas imperfectives often develop out of progressives (see Bybee et al. 1994: 51–175); iteratives and similar constructions as well as futures may come from a number of different sources, such as verbs of volition, obligation and motion (Bybee et al. 1994: 243–280). There is a strong correlation between the way in which a tense–aspect gram is expressed – whether it is inflectional or periphrastic – and how far it has advanced on its path of grammaticalization. Thus, perfects and progressives are overwhelmingly periphrastic, whereas pasts and perfectives are more prone to be inflectional.

It goes without saying that it is impossible to encompass the richness of the tense and aspect systems of the world’s languages within four maps. We have been forced to neglect a number of gram types, most of which have interesting geographical distributions; among these are habituais, iteratives, frequentatives, dedicated narrative forms,

resultatives, and experientials. We have also neglected tense and aspect marking in embedded contexts, as well as the interplay between tense–aspect and other categories, such as negation (many languages have special tense–aspect forms in negative contexts, cf. chapter 114).

Tense and aspect are notoriously difficult categories to describe adequately, and the treatment in grammars is often problematic, especially if one wants to use it for cross–linguistic comparison. As far as possible, we have tried to apply consistent criteria in classifying tense–aspect phenomena. For this reason, our interpretations sometimes differ from those found in grammars. The reader should thus not be surprised if a language is classified in an unexpected way.

In compiling the data for the maps on tense and aspect, we have drawn upon two earlier large–scale typological surveys, namely those presented in Dahl (1985) and Bybee et al. (1994). The sample is the same for all four maps and contains all languages in the basic *WALS* 100–language sample except one (Mezquital Otomí), for which it was not possible to get adequate information. Discussions of areal tendencies in tense–aspect systems based on the sample in Bybee et al. (1994) are found in Dahl (1995) and Dahl (2000); the present sample is about three times as large, however, and although earlier findings are basically confirmed, we are now able to see the general pattern much more clearly.

65. Perfective/Imperfective Aspect

1. Introduction

The distinction between **imperfective** and **perfective** plays an important role in many verb systems and is commonly signalled by morphological means (rather than being expressed periphrastically). A particularly straightforward case is found in

Rendille (East Cushitic; Kenya). Nonstative verbs in Rendille distinguish two basic forms, one which normally ends in *-a* and one which normally ends in *-e*, as illustrated by the examples in (1).

(1) Rendille (own data)

- | | | |
|----|--|----------------|
| a. | <i>khadaabbe</i> | <i>chiirta</i> |
| | letter.PL | write.IMPF |
| | 'He writes/is writing/wrote/was writing/will write letters.' | |
| b. | <i>khadaabbe</i> | <i>chiirte</i> |
| | letter.PL | write.PFV |
| | 'He wrote letters.' | |

The imperfective form in *-a* is used for reference to the present and the future but also for on-going and habitual events in the past, as indicated by the translations. The perfective form in *-e* is basically restricted to single completed events in the past (with some vacillation for past habitual contexts). In most other languages with an imperfective/perfective distinction, this pattern is obscured by interaction with other tense/aspect grams, but the basic opposition between one form (or set of forms) which is used exclusively or almost exclusively for single completed events in the past and another form (or set of forms) which is used for everything else is characteristic of the distinction.

To be interpreted as a perfective, we demand that a form should be the default way of referring to a completed event in the language in question. In many languages, there are forms or constructions that are used of completed events but only if some additional nuance of meaning is intended, for instance if emphasis is put on the result being complete or affecting the object totally. Such **strong perfectives** ("conclusives" in Dahl (1985) and "completives" in Bybee et al. (1994)) exhibit relatively large variation cross-linguistically. They are often called "perfectives" in grammars but are not counted as such here. The

following example is from Rama (Chibchan; Nicaragua), where the suffix *-atku-* (derived from a verb meaning ‘finish’) indicates a “strong perfective”:

- (2) Rama (Grinevald n.d.: 154)
yaing kwiik alauk-atkul-u
 3.POSS hand burn-STRONG.PFV-PST
 ‘He burned his hand completely.’

We distinguish imperfectives from **progressives**, with which they partially overlap and which are often seen as a variety of imperfectives. Progressives, like the English *is singing* or the equivalent Spanish *está cantando*, have a more restricted domain of use (for instance, they are typically not the primary choice for expressing habitual meaning), which means that they are opposed to non-progressive forms independently of time reference. They are also normally restricted to non-stative verbs. Progressives are frequent diachronic sources of marked imperfectives, and borderline cases admittedly exist.

We also distinguish imperfectives from **antipassives**, by which we understand processes that operate on transitive constructions to make them less transitive by removing the direct object or marking it as an oblique (see chapter 108). Antipassives, which are particularly frequent in ergative languages, often influence the aspectual character of the sentence, with ranges of meaning similar to those of progressives and imperfectives. The following example is from Bandjalang (Pama-Nyungan; New South Wales, Australia):

- (3) Bandjalang (own questionnaire data from M.J. Sharpe)
nyule leda bugalehn
 he.VISIBLE letter write.ANTIPASSIVE
 ‘He is writing a letter.’

2. Definition of values

For this map, only two values have been defined: languages in which there is grammatical marking of the perfective/imperfective distinction (red) and those where there is not (white). “Grammatical marking” here includes both marking by morphological means and by periphrastic constructions.

In most other tense–aspect oppositions, there is cross-linguistic consistency with respect to which member of the opposition is to count as the marked one. For the imperfective/perfective distinction, this is not possible. There are languages in which the perfective has no marker and the imperfective has an overt marker, and vice versa, but most often (at least in our sample) no clear marking relations can be identified. (One reason for this is that the distinction is frequently manifested by stem alternations and similar processes.)

@	1. Grammatical marking of perfective/imperfective distinction	101
@	2. No grammatical marking of perfective/imperfective distinction	121
	total	222

3. Geographical distribution

Perfective/imperfective distinctions seem to be less skewed in their geographical distribution than, for instance, past tenses (see chapter 66). However, we can discern the following tendencies. In a band across southern Eurasia from Europe (excluding most of the northern part) to China (but excluding the Dravidian part of South Asia and all of Southeast Asia), there is fairly consistent marking of perfectivity/imperfectivity. One may see this area as extending into Africa down to the Equator.

Interestingly, it overlaps quite considerably with the Eurasian/African past marking area (seen on Map 66), but lies south of it. Northern Europe outside the Slavic area has very little perfectivity/imperfectivity marking. Other white clusters on the map include large parts of South America and Southeast Asia (see remarks on the latter in chapter 66).

4. Further considerations

Even if perhaps not so often formulated as an explicit hypothesis, there seems to be a widespread view of tense and aspect as alternatives to each other – that languages tend to be either “tense languages” or “aspect languages”. If this were the case, we would expect a negative correlation between imperfectives and perfectives on the one hand, and pasts and futures on the other. The data presented here provide no support for such a conclusion. In fact, there are considerably more languages in the sample that have both the aspectual and the temporal categories, or neither of the alternatives, than have one only. It is plausible that there is rather a positive correlation between all the categories under discussion and the general morphological complexity of the verb.

66. The Past Tense

1. Introduction

In English, like virtually all European languages, there is a systematic grammatical distinction between **present tenses** and **past tenses**, as in the following sentence pair:

- (4) a. *The temperature is below zero right now.*
 b. *The temperature was below zero yesterday at noon.*

In (4) the form of the finite verb (in this case, the copula *is/was*) depends on what time we are talking about – what we may call the **topic time** (following Klein (1994)): the present form *is* is used if the topic time coincides with the time of speech, and the past form *was* if the topic time precedes the time of speech. This is of course a very rough rule in need of a number of further specifications. As was already noted in the introductory chapter, grammaticalized marking of time in the form of tenses is typically independent of considerations of relevance. The fact that time in (4) is also indicated (and more precisely so) by time adverbials does not make tense marking less necessary. Rather, the presence of a deictic time adverbial such as *yesterday* renders the use of anything but the simple past tense unacceptable in (4b).

Since it is generally the past tense rather than the present that is overtly marked, we may speak of languages having or not having past marking rather than having a past/non-past distinction.

It is only from a Eurocentric point of view that the marking of the distinction between present and past appears to be a necessary part of grammar. Languages may or may not distinguish (4) grammatically, and there is no clear majority for either alternative. The following Indonesian example, which translates both ‘The water is cold’ and ‘The water was cold’, illustrates the lack of a present/past distinction:

(5) Indonesian (own data)

Air itu dingin.

water that cold

‘The water is/was cold.’

The primary goal of this chapter is to show the geographical distribution of past tenses. There are several things that make this task less straightforward than it might seem *prima facie*.

Perhaps most importantly, we must elucidate the relationship between past tenses and grammatical aspect. Given that perfective forms are by default interpreted as referring to the past (see the general introduction to chapters 65–68), any further marking of past time reference would appear redundant. Indeed, it is probably most common for overt past tense marking not to be compatible with perfective aspect. In such cases, we may get the **tripartite** system represented e.g. by the present–imperfect–aorist system of many Indo–European languages, illustrated here by Eastern Armenian, where a periphrastic construction (copula + converb of the main verb) is used in the imperfective (Present and Imperfect tenses below):

(6) Eastern Armenian (own data)

a. Present:

Na namak e gər-um.
 he letter is write-CONV
 'He is writing/writes a letter.'

b. Imperfect:

Na namak er gər-um.
 he letter was write-CONV
 'He was writing/wrote (habitually) a letter.'

c. Aorist:

Na namak gr-ecə.
 he letter write-AOR.3SG
 'He wrote a letter (a single event).'

Similar systems are found in many different families, although they are particularly common in the past-marking part of Eurasia. The question is how they should be analysed. The possibility that first comes to mind is probably to assign the labels "present", "past imperfective" and "past perfective" to the three forms. This would imply that (6b) and (6c) are both members of a general past tense category, and that the aspectual distinction is made only there. However, there are at

least two arguments against such an analysis. One is that it does not fit the actual make-up of the forms very well. In the Eastern Armenian system, there is nothing that unites (6b) and (6c) in the way they are expressed. Rather, (6b) is naturally seen as an elaboration on (6a), and (6c) has a wholly unique composition. This state of affairs turns out to be typical of tripartite systems (although some exceptions can be found). Another argument is that calling (6c) a "past perfective" obscures the basic cross-linguistic unity of perfectives, which appear to have more or less the same semantics irrespective of whether the language distinguishes past and present in the imperfective or not. Following Dahl (1985: 81–84), we therefore do not regard categories like the Armenian Aorist as "past perfectives" but rather simply as "perfectives", and categories like the Armenian Imperfect as a particular variety of past, restricted to imperfective forms. In Dahl (1985: 117–118), such forms were labelled "PASTi" but here we use the more intuitive "past imperfective". Aspectually unrestricted pasts and past imperfectives are not distinguished on the map, the argument being that the latter are found in the overwhelming majority of languages which have both the perfective/imperfective distinction and past tense marking. The most notable exceptions are languages such as Russian, where these two grammatical phenomena are more independent of each other.

Both Dahl (1985: 117) and Bybee et al. (1994: 82) provide support for the claim that significantly more than half of all pasts are marked morphologically. The tendency may be weaker for past imperfectives, but the material is not extensive enough to make any certain claims.

Very often, languages make further grammatical distinctions within the domain of past time reference. Thus, many languages have **perfects** as separate categories – this will be discussed in chapter 68. In addition, as many as one fifth of the languages in our sample make **remoteness distinctions** – that is, tense choice is dependent on the temporal distance

between the time of speech and the topic time. Remoteness may be more subjectively or more objectively determined; in the latter case, a combination of a “remote” time adverbial with a “non-remote” tense will result in ungrammaticality. (It should be noted that like tenses in general, tenses which distinguish degrees of remoteness do not substitute for adverbials but are used whether or not there is another temporal indication in the sentence.)

Almost universally, if there is one well-defined cut-off point in the past between different forms, the division lies between ‘today’ and ‘before today’. The ‘before today’ range is often divided further. The term **hodiernal** is commonly used for ‘today’s past’, and tenses that are restricted to the day before the point of speech may be called **hesternal**.

The richest system in our sample is that of Yagua, which according to the available description (Payne and Payne 1990: 386–388) has five degrees of remoteness in the past, as shown in Table 1:

Table 1. Remoteness distinctions in Yagua

Name in grammar	Use	Suffix	Example
Proximate 1	'a few hours previous to the time of utterance'	<i>-jásiy</i>	<i>rayáásiy</i> { <i>ray–jiya–jásiy</i> } 1 SG–go–PROX1 'I went (this morning).'
Proximate 2	'one day previous to the time of utterance'	<i>-jay</i>	<i>rjijnúújeñíí</i> { <i>ray–junnúúy–jay–níí</i> } 1 SG–see–PROX2–3SG 'I saw him (yesterday).'
Past 1	'roughly one week ago to one month ago'	<i>-siy</i>	<i>sadíichimyya</i> { <i>sa–díí–siy–maa</i> } 3SG–die–PST2–PERF 'He has died (between a week and a month ago).'
Past 2	'roughly one to two months ago up to one or two years ago'	<i>-tíy</i>	<i>sadíítimyya</i> { <i>sa–dííy–tíy–maa</i> } 3SG–die–PST2–PERF 'He has died (between 1 to 2 months and a year ago).'
Past 3	'distant or legendary past'	<i>-jada</i>	<i>raryúpeeda</i> { <i>ray–rupay–jada</i> } 1 SG–be.born–PST3 'I was born (a number of years ago).'

Forms used for recent past sometimes coincide with perfects (or are historically derived from them). As the label 'distant or legendary past' in the table suggests, it may sometimes be hard to distinguish distant pasts from forms reserved for use in myths and legends, which may function not only as tenses, but also as stylistic or modal markers.

2. Definition of values

The basic dichotomy here is between languages that mark the past/non-past distinction grammatically (including marking by periphrastic constructions) and those which do not. Within the first group, three subtypes are distinguished, depending on the number of remoteness distinctions made, as shown in the feature-value box.

@	1. Past/non-past distinction marked; no remoteness distinction	94
@	2. Past/non-past distinction marked; 2-3 degrees of remoteness distinguished	38
@	3. Past/non-past distinction marked; at least 4 degrees of remoteness distinguished	2
@	4. No grammatical marking of past/non-past distinction	88
	Total	222

3. Geographical distribution

There are quite strong areal tendencies in the distribution of past tenses – perhaps strong enough to deserve another word than “tendency”. This can be seen on the map as homogeneous one-colored areas.

The largest homogeneous past-marking area is one that stretches from Iceland in the northwest to the Horn of Africa in the south and Bangladesh in the southeast, including much of central Eurasia (but excluding northeastern Siberia). Since the Indo-European phylum also extends between Iceland and Bangladesh, it is tempting to see this as an Indo-European phenomenon. However, the area also includes phyla such as

Uralic, Altaic, and large parts of Afro-Asiatic, and isolates such as Basque and Burushaski. Other homogeneous past-marking areas include Australia, northern South America and central New Guinea.

In Africa, the majority of the sample languages are past-marking, but there is also an (almost) homogeneous non-marking area in central and western Africa. Two things are worth mentioning here. One is that most of the languages involved have an imperfective/perfective distinction. The other is that the languages without past in this area include members of all three major phyla that are represented here – Afro-Asiatic, Niger-Congo, and Nilo-Saharan. None of these phyla is consistently non-marking, however. In other words, we are dealing with a fairly clear example of areal convergence.

The most salient area of homogeneous non-marking of past is found in Southeast Asia, and also includes languages from a number of different phyla – Sino-Tibetan, Austro-Asiatic and Austronesian, to mention the largest ones. The languages in this area lack not only past tenses but also marking of the imperfective/perfective distinction and inflectional futures. These are of course the well-known isolating languages of Southeast Asia, and it is hardly a coincidence that they lack precisely those tense-aspect gram types that cross-linguistically are most often marked inflectionally. What is more difficult to decide is what is cause and what is effect here.

There may be a similar area in West Africa, but it is at any rate much more restricted – in our sample there are only three West African languages that are marked as white on all three of the maps 65–67.

67. The Future Tense

1. Introduction

In English, the sentence *It is cold tomorrow*, with the present tense of the copula *is*, sounds strange: it is more natural to say *It will (it'll) be cold tomorrow* or *It is going to be cold tomorrow*, using a **future tense** form. In Finnish, on the other hand, one may replace the adverb *tänään* 'today' in (7) with *huomenna* 'tomorrow', yielding (8) without any further changes in the sentence.

Finnish

- (7) *Tänään on kylmää.*
 today is cold.PART
 'It is cold today.'
- (8) *Huomenna on kylmää.*
 tomorrow is cold.PART
 'It will be cold tomorrow.'

The Present Tense can thus be used equally well for the present and the future in Finnish, in contrast to English, where it is often the case that auxiliary constructions such as *shall/will+Verb* and *be going to+Verb* must be used when speaking of the future. In many languages where future time reference is grammaticalized, the means employed is inflectional. Thus, in French, (9) and (10) differ in the form of the verb *faire* '(lit.) do'.

French

- (9) *Il fait froid aujourd'hui.*
 it do.PRES.3SG cold today
 'It is cold today.'
- (10) *Il fera froid demain.*
 it do.FUT.3SG cold tomorrow
 'It will be cold tomorrow.'

It is relatively rare for a language to totally lack any grammatical means for marking the future. Most languages have at least weakly grammaticalized devices for doing so. In this

chapter, we have therefore decided to map only the **inflectionally marked future tenses**, inflectional marking being a relatively clear criterion (although there are some borderline cases where it is unclear if one is dealing with a clitic or an affix). Inflectional markings more often tend to be obligatory and also on the whole have a wider range of uses. For instance, they regularly show up in temporal and subordinate clauses, where periphrastic future-marking devices are relatively rare. They also appear systematically (often obligatorily) in sentences which express clear predictions about the future (which are independent of human intentions and planning), whereas less grammaticalized constructions often tend to be predominantly used in talk of plans and intentions – a fact which is explainable from the diachronic sources of future tenses, which have been fairly well studied (Bybee et al. 1994: 243–280). In most cases, inflectional future tenses derive from periphrastic constructions (employing auxiliaries or particles), which are in turn derived from constructions expressing such notions as obligation ('must'), volition/intention ('want'), and motion ('go' and 'come'). However, a future tense may develop out of an earlier non-past or imperfective as an indirect effect, for example of the functional expansion of an earlier progressive – the future uses are what is left of the old category after that expansion.

The modal overtones that tend to go with futures have led many linguists to question their status as tenses (e.g. Lyons 1968: 306–311). In the approach presented in our general introduction, it is generally not expected that one will be able to make an unequivocal classification of the elements of tense-aspect-mood systems into neat compartments. From a diachronic point of view, it may be noted that one result of the progressive grammaticalization of futures is that the temporal component of their semantics becomes more dominant relative to the modal component.

Many grammars subsume grammatical future-marking devices under the heading "irreal(is)", especially when their

range of use includes negated sentences, counterfactual conditionals, imperatives, etc. With Bybee et al. (1994: 240), we take the view that the distribution of irrealis categories varies too much across languages for them to be acknowledged as a viable cross-linguistic type; such categories are here counted as inflectional futures, if they are expressed inflectionally and cover the same range of uses as other future tenses.

2. Definition of values

For this map, only two values have been defined: languages in which there is inflectional marking of future time reference and those where there is not.

@	1.	Inflectional marking of future/non-future distinction	110
@	2.	No inflectional marking of future/non-future distinction	112
		Total	222

3. Geographical distribution

The map shows some fairly clear areal tendencies in the distribution of inflectional future tenses, although there are no real large-scale homogeneous areas as in the case of past tenses (cf. chapter 66). On two continents, North America and Australia, languages with inflectional futures are in a clear majority, as also in New Guinea (at least the central parts). The sample languages from the South Asian subcontinent consistently mark future inflectionally; this is in stark contrast to the adjacent Southeast Asian area, where no inflectional futures are found between 90°E and 120°E. (For a discussion of the Southeast Asian area, see chapter 66.) European languages are averse to inflectional future marking, with some exceptions (the

western Romance, Baltic and Celtic languages). There is a fairly homogeneous future-marking area extending from the Middle East up into the Caucasus. South America and Africa are more varied, although there may be local patterns not visible in this sample.

4. Further considerations

In chapter 65, we noted that there is no evidence in the data for a division of languages into tense-prominent and aspect-prominent. Another such proposed typology (Ultan 1978) is into languages that oppose grammatically past and non-past and languages that oppose future and non-future. Again, the data presented here do not lend support to this typology. There are more languages in the sample that have both pasts and futures, or neither of them, than languages that have only one of the two categories. Even if the proportion may not be wholly reliable, it is unlikely that a negative correlation between the marking of past and the marking of future could be found.

Acknowledgement

We are grateful to Joan Bybee for putting unpublished data from the GRAMCATS database at our disposal.

68. The Perfect

1. Introduction

By **perfect** we mean a category with approximately the same semantics as the English (Present) Perfect in *I have read this book*, which is used to express events that took place before the temporal reference point but which have an effect on or are in

some way still relevant at that point. This includes at least two related but distinguishable uses:

- (i) A perfect may be used **resultatively**, i.e. of an event, often but not always a recent one, which has results that hold at the time of speech (or any other time serving as reference point): *Someone has stolen my purse!* (=the purse is gone).
- (ii) A perfect may be used **experientially**, i.e. to say that a certain type of event took place one or more times over an interval of time, typically one that extends up to the moment of speech (or whatever time serves as the reference point): *I have seen worse things in my life.*

Constructions that have only one of these two uses (dedicated resultatives and experientials) have not been treated as perfects here. Admittedly, the information given in grammars is not always specific enough to make reliable decisions on this point.

Perfects may have further uses, such as the **universal perfect** (or **perfect of persistent situation**), as in *I have lived here for five years*. It is also common for perfects to develop **evidential** uses (see chapter 77; in English this is typical of the perfect progressive – *You have been drinking*) and **recent past** uses (as in several Romance languages).

Note that the terms “perfect” and “perfective” are not synonymous (the terminology is confusing but has a historical motivation). Bybee et al. (1994) use the term “anterior” in the same sense as “perfect” is used here.

The English Perfect is cross-linguistically typical in being expressed periphrastically.

2. Definition of values

The basic distinction is between languages that have perfects and those that do not. As noted above, only constructions or forms that have both resultative and experiential readings are

regarded as perfects here. On the other hand, to count as a perfect, a construction or form must not be equivalent to a general past tense. An operational criterion for judging about this is whether or not the form or construction is regularly used in narratives (Lindstedt 2000: 366).

The most interesting areal patterns with regard to perfects are related to their diachronic sources. Perfects derive diachronically from at least three types of sources, the last two of which are singled out for special marking on the map:

- (i) dedicated resultative constructions, usually consisting of constructions involving a past participle (or similar form) in predicative position with or without a copula (sometimes called *esse* perfects or 'be'-perfects), e.g.

(11) Finnish

Juna on saapunut.
 train is arrive.SUPINE
 'The train has arrived.'

- (ii) possessive constructions such as *I have two letters written* (sometimes called HABEO or 'have'-perfects), e.g. the English perfect;
- (iii) constructions involving words such as 'already' or 'finish', as exemplified by Yoruba:

(12) Yoruba (own data)

Ó ti ka iwe na.
 he PFV/already read book this
 'He has read this book'

It may be, as argued by Ebert (2001), that what we here call perfects of type (iii) should be treated as a gram type of their own (Ebert calls it "NEWSIT"), where the primary function is to introduce a "new situation". There is also some evidence that a

NEWSIT and a perfect, with distinct forms, may coexist in the same language (Burmese and Fijian are possible examples in our sample). We have not tried here to make a systematic distinction between perfects and NEWSITs, since the information at hand does not allow this, but languages with perfects that are known to be diachronically derived from (or have the same shape as) ‘already’ or ‘finish’ are marked as such on the map.

There may be further distinctions between perfects in the narrow sense (also called present perfects) on the one hand, and **past perfects** (or **pluperfects**) and **future perfects** on the other. For reasons of space, these are not represented on our maps. It may be noted that, in general, past perfects indeed tend to be realized as combinations of pasts and perfects, and that they are to be expected in those languages in which both these gram types appear. However, sometimes a past perfect may survive the demise of a present perfect, as has happened for instance in Romanian. Past perfects have a relatively strong tendency to develop non-compositional readings, that is, they become semantically independent of pasts and perfects. Future perfects tend to play a more peripheral role in tense-aspect systems.

We distinguish three types on the map: perfects known to derive from a possessive construction (‘have’-perfects), perfects known to derive from words meaning ‘finish’ or ‘already’, and all other perfects (including both perfects known to derive from dedicated resultative constructions, and perfects where the diachronic source cannot be determined).

@	1.	Perfect of the ‘have’-type (derived from a possessive construction)	7
@	2.	Perfect derived from word meaning ‘finish’ or ‘already’	21
@	3.	Other perfect	80
@	4.	No perfect	114
		total	222

3. Geographical distribution

If we look at the general distribution of perfects, we can note the following tendencies. The largest homogeneous areas with perfects are found in western Europe and South and Southeast Asia. A high proportion of languages with perfects is also found throughout Africa and in an area comprising Mesoamerica and the northwestern corner of South America. Large areas with virtually no perfects, on the other hand, are found in the rest of South America and Australia.

However, the differences between the different parts of the world are accentuated when we take into consideration the possible diachronic sources of perfects. Perfects deriving from possessive constructions are attested almost exclusively in Europe (Chukchi is a possible exception, but we have not treated the construction in question as a perfect.) Furthermore, they are almost exclusively based on constructions with a transitive possessive verb like English *have*, and are restricted to a contiguous area in western Europe, as a result of an apparently rapid spread in the Middle Ages. Map 68.1 shows the maximal extent of this spread. In the centre of the area, there is a division of labour between ‘have’-perfects and ‘be’-perfects, the latter being used primarily for intransitive verbs of motion and change. In the centre, there has also been a new development in that the original perfects have come to be used as general pasts or perfectives. The boundaries of these areas are also shown in Map 68.1.

[Map 68.1. ‘Have’ perfects in Europe about here]

Perfects derived from ‘already’ and ‘finish’ – which were noted above as having a special semantics – also show a very marked geographical distribution, being concentrated in Southeast Asia

and West Africa. (It is possible that more languages should be marked as having this type, but information is sometimes lacking.) It is striking that this coincides with the areas where we find little or no morphological marking of tense and aspect in general, which is reflected on our other maps by the preponderance of white circles.