

WORLD LEXICON OF GRAMMATICALIZATION

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World Lexicon of Grammaticalization

While the comparative method is concerned with regularities in phonological change, grammaticalization theory deals with regularities of grammatical change. In an A–Z format, this book summarizes the most salient generalizations that have been made on the unidirectional change of grammatical forms and constructions. The product of ten years of research, *World Lexicon of Grammaticalization* provides the reader with the tools to discover how different grammatical meanings can be related to one another in a principled way, how such issues as polysemy and heterosemy are dealt with, and why certain linguistic forms have simultaneous lexical and grammatical functions. It covers several hundred grammaticalization processes, in each case offering definitions of lexical concepts, suitable examples from a variety of languages, and references to the relevant research literature; appendixes organized by source and target concepts allow for flexible use. The findings delineated in the book are relevant to students of language across theoretical boundaries.

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Contents

Acknowledgments

vii

Abbreviations and Symbols

ix

1

Introduction

1

2

Grammatical Concepts Used in This Work

15

3

Source–Target Lexicon

27

Appendix 1: Source–Target List

317

Appendix 2: Target–Source List

327

Appendix 3: List of Languages

337

References

351

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¹ We have marked such examples with the phrase “anonymous reader.”

Abbreviations and Symbols

| | | | |
|--------------|---|--------|-----------------------------|
| ABL | ablative | CAU | cause |
| ABS | absolute | CAUS | causative |
| ACC | accusative | CD | Dutch-based creole |
| ACTU | actuality | CE | English-based creole |
| ADE | adessive | CF | French-based creole |
| ADJV | adjectivizer | CL | noun class |
| ADV | adverb | CLASS | classifier |
| ADVL | adverbial | CM | class marker |
| ADVR | adverbializer | CN | class noun |
| AGR | agreement | COM | comitative |
| ALL | allative | COMP | complementizer |
| ALM | almost | COMPAR | comparative |
| AOP | aorist participle | CON | continuous |
| AOR | aorist | COND | conditional |
| APPL | applicative | CONJ | conjunction |
| ART | article | CONN | connective suffix |
| ASP | aspect | CONP | connective particle |
| ASS | assertion particle | CONT | continuative |
| AUX | auxiliary | CONV | converb |
| AVER | avertive | COP | copula |
| BEN | benefactive | CP | Portuguese-based creole |
| C | common gender; creole when in reference to specific languages | CPL | completive |
| C1, C2, etc. | noun class 1, 2, etc. | CRS | currently relevant state |
| CA | Arabic-based creole | CS | Spanish-based creole |

| | | | |
|--------|---------------------------|---------|------------------------------|
| DAT | dative | IMPFV | imperfective |
| DEB | debitive | INAN | inanimate |
| DEC | declarative | INCL | inclusive |
| DEF | definite | INCPL | incompletive |
| DEICT | deictic marker | IND | indicative |
| DEM | demonstrative | INDEF | indefinite |
| DET | determinator | INE | inessive |
| DIM | diminutive | INF | infinitive |
| DIR | directional | INSTR | instrument |
| DISC | discontinuous | INSTRN | instrumental |
| DISTAL | distal (demonstrative) | INT | noun intentional |
| DU | dualis | INTER | interrogative marker |
| DUR | durative | INTR | intransitive |
| EMPH | emphatic | INTJ | interjection |
| EMPTY | empty marker | IRR | irrealis |
| ERG | ergative | IS | intransitive final suffix |
| EXCL | exclusive | | |
| F | feminine gender | JUNC | junction |
| FEM | female | | |
| FACT | factitive | LIG | ligature |
| FOC | focus | LNK | linking vowel |
| FREQ | frequentative | LOC | locative |
| FUT | future | LOG | logophoric |
| GEN | genitive | | |
| GER | gerund | M | masculine gender |
| GL | goal | MO | motion verb class |
| HAB | habitual | | |
| HON | honorific | N | noun |
| HORT | hortative | NAR | narrative |
| HUM | human | NEG | negation |
| | | NEUT | neuter gender |
| IDENT | identifier | NFUT | near future |
| IDEO | ideophone | NOM | nominative |
| ILL | illative | NOMIN | nominalizer |
| IMC | imperfective converb | NONPAST | nonpast |
| IMP | imperative | NP | noun phrase |
| IMPERF | imperfect | NPERF | near perfect |
| | | NPL | nonplural marker |

| | | | |
|--------|--|----------|--|
| OBJ | object | REAS | reason |
| OBL | oblique | REC | reciprocal |
| OPT | optative | REFL | reflexive |
| P | pidgin, in reference to specific languages | REL | relative (clause marker) |
| PA | Arabic-based pidgin | RES | restrictive |
| PART | particle | RESULT | resultative |
| PARTCP | participle | RM | relator, relation marker |
| PARTV | partitive | SBST | substantivizer |
| PASS | passive | SG | singular |
| PAST | past | SRDIR | superdirective marker |
| PE | English-based pidgin | SREL | superrelative marker |
| PERF | perfect | SRESS | superessive marker |
| PFV | perfective | SS | same subject marker |
| PL | plural | STATS | subject of a stative verb |
| PLU | pluperfect | SUB | subordinator |
| PM | participial marker | SUBEL | subrelative marker |
| POESS | postessive | SUBJ | subject |
| POSS | possessive | SUBJUNCT | subjunctive |
| POST | postposition | SUF | suffix |
| POT | potential | TAM | marker of tense, aspect, or modality |
| PRED | predicate marker | TERM | terminative |
| PREP | preposition | TNS | tense |
| PRES | present | TOP | topic |
| PROG | progressive | TR | transitive |
| PROH | prohibitive | TRI | trial |
| PRON | pronoun | VEN | venitive |
| PROX | proximative | VINC | incremental |
| PROXIM | proximal (demonstrative) | VN | vowel on verbs verbal noun |
| PERS | person | | |
| PST | participle of state | | |
| PURP | purpose | | |
| PX | proximity marker | | |
| Q | interrogative | | |
| QUOT | quotative | | |
| R | relational suffix | | |
| REAL | realis | | |

| | |
|-----|--|
| 1 | first person |
| 2 | second person |
| 3 | third person |
| I | juncture I |
| II | juncture II |
| = | clitic boundary |
| ? | morpheme of unknown meaning |
| * | reconstructed item |
| () | interlinear glosses tentatively volunteered by the authors |

Introduction

Over the course of the last three decades, a wealth of data has been published on the origin and development of grammatical forms. The main purpose of the present work is to make this wealth accessible to a wider readership. To this end, over 400 processes relating to the evolution of grammatical categories are discussed, using data from roughly 500 different languages. (See Appendix 3 for a list of languages figuring in this book.)

The readership we have in mind for this book includes first of all linguists. Grammaticalization theory, which is the framework adopted here (see §1.1), is concerned with language use across space and time; hence the findings presented may be of help for diachronic reconstruction, especially in areas where other tools available to the historical linguist, such as the comparative method and internal reconstruction, do not yield appropriate results. The descriptive linguist will find information, for example, on how and why different grammatical meanings can be related to one another in a principled way (i.e., on how to deal with issues like polysemy and heterosemy), on why there are some regular correspondences between grammatical forms and the meanings expressed by them, or on why certain linguistic forms have simultaneously lexical and grammatical functions. Anthropologists, sociologists, and psychologists may discover that the kind of human behavior held responsible for the evolution of grammatical forms is not all that different from the kind of behavior they observe in their own fields of study.

What distinguishes this work from relevant monographs on grammaticalization theory (e.g., Lehmann 1982; Heine and Reh 1984; Heine, Claudi, and Hünemeyer 1991; Traugott and Heine 1991a, 1991b; Hopper and Traugott 1993; Bybee, Perkins, and Pagliuca 1994; Pagliuca 1994; Heine 1997b; Ramat and Hopper 1998) is its conception as a reference work. Accordingly, an attempt was made to collect many data from as many different languages as possible and to avoid theoretical biases – as far as this is possible and feasible.

1.1 Grammaticalization Theory

Grammaticalization is defined as the development from lexical to grammatical forms¹ and from grammatical to even more grammatical forms. Since the development of grammatical forms is not independent of the constructions to which they belong, the study of grammaticalization is also concerned with constructions and with even larger discourse segments.

In accordance with this definition, grammaticalization theory is concerned with the genesis and development of grammatical forms. Its primary goal is to describe how grammatical forms and constructions arise and develop through space and time, and to explain why they are structured the way they are.² Technically, grammaticalization involves four main interrelated mechanisms.

- (a) desemanticization (or “semantic bleaching”) – loss in meaning content,
- (b) extension (or context generalization) – use in new contexts,
- (c) decategorialization – loss in morphosyntactic properties characteristic of lexical or other less grammaticalized forms, and
- (d) erosion (or “phonetic reduction”) – loss in phonetic substance.

While three of these mechanisms involve a loss in properties, there are also gains. In the same way that linguistic items undergoing grammaticalization lose in semantic, morphosyntactic, and phonetic substance, they also gain in properties characteristic of their uses in new contexts. Grammaticalization requires specific contexts to take place, and it can be, and has been, described as a product of context-induced reinterpretation. Accordingly, context is a crucial factor in shaping the structure of grammatical forms – to the extent that they may express meanings that cannot immediately be derived from their respective source forms.

It has been argued that grammaticalization is not a distinct process, since the four mechanisms can be observed to be at work also in other kinds of linguistic change (Newmeyer 1998: 248ff.).³ There are a couple of reasons why we think that such a position is not justified. First, the main task of grammaticalization theory is to explain why grammatical forms and constructions are structured the way they are, and these four

¹ The term “grammatical forms,” or “grams,” roughly corresponds to what is also referred to as “functional categories.”

² Newmeyer (1998: 240) raises doubts about whether we are really dealing with a theory here, and he rightly observes that much of the relevant literature on this subject is not very helpful on deciding this issue.

³ Newmeyer (1998: 260) refers to desemanticization as “appropriate semantic change,” to decategorialization as “downgrading analysis,” and to erosion as “phonetic reduction.”

mechanisms, as opposed to many other conceivable mechanisms, have been found to be relevant to achieve such explanations. Thus, irrespective of how one wishes to define a “distinct process,” one is led to conclude that these mechanisms are part of one and the same explanatory framework.

Second, grammaticalization, as conceived here, is above all a semantic process. This process is context dependent, and grammaticalization can therefore be described in terms of context-induced reinterpretation. Not every reinterpretation leads to the rise of grammatical meanings. Rather, it is only when forms for concrete (e.g., lexical) meanings are used to also express more abstract (grammatical) meanings that grammatical forms emerge; for example, when a form used for a visible object (e.g., the body part ‘back’) is used also to refer to a nonvisible item (the spatial notion ‘behind’), or a form used for an action (‘go to’) is used also to refer to a grammatical notion (future tense). On account of its specific directionality, context-induced reinterpretation has been described in terms of metaphorical transfer, leading, for example, from the domain of concrete objects to that of space, from space to time, from (“real-world”) space to discourse space, and so on.

Desemanticization thus results from the use of forms for concrete meanings that are reinterpreted in specific contexts as more abstract, grammatical meanings. Having acquired grammatical meanings, these forms tend to become increasingly divergent from their old uses: they lose in categorial properties characteristic of their old uses, hence undergoing decategorialization, and they tend to be used more frequently, to become more predictable in their occurrence, and, consequently, to lose in phonetic substance. Thus, the four mechanisms are not independent of one another; rather, desemanticization precedes and is immediately responsible for decategorialization and erosion. There are a few cases where it has not yet been possible to establish that decategorialization really followed desemanticization in time, and we do not wish to exclude the possibility that in such cases the two may have occurred simultaneously. However, such cases appear to be exceptional: new grammatical meanings arise, and it usually takes quite some time before any corresponding morphological, syntactic, and/or phonetic changes can be observed. In many languages, prepositions unambiguously serving a grammatical function still have the morphosyntactic structure of their earlier uses as adverbial phrases (cf. English *by means of*, *in front of*, *with respect to*) or verbal phrases (cf. Chinese ZAI ‘(to be) at’; Alain Peyraube, personal communication), and tense or aspect auxiliaries may still behave morphosyntactically largely like lexical verbs even if they have lost their lexical semantics and serve exclusively as functional categories (cf. English *be*

going to, used to, keep (doing), etc.). To conclude, there is evidence to suggest that grammaticalization can be defined as a distinct process.

It is sometimes assumed that grammaticalization invariably involves lexical categories; that is, that it is confined to the development from lexical to grammatical forms. This view tends to ignore that such cases account for only part of what falls under the rubric of grammaticalization. Equally commonly, as we will see in the course of this work, items already part of the inventory of grammatical forms give rise to more strongly grammaticalized items. Prepositions often develop into conjunctions, temporal conjunctions tend to give rise to causal or concessive conjunctions, demonstrative determiners develop into definite articles or relative clause markers, verbal perfect inflections may become past tense markers, and so forth – all developments that take place within the domain of functional categories. Such developments are distinguished mainly from developments involving lexical categories by the difficulty of identifying and reconstructing them.

Grammaticalization is a unidirectional process; that is, it leads from less grammatical to more grammatical forms and constructions. However, this process is not without exceptions: a number of examples contradicting the unidirectionality principle have been found (see, e.g., Joseph and Janda 1988; Campbell 1991; Ramat 1992; Frajzyngier 1996; and especially Newmeyer 1998: 260ff.). Yet, as acknowledged by most of the scholars who have identified exceptional cases, such examples are few compared to the large number of cases that conform to the principle⁴ (cf. Haspelmath 1999, 2000: 249). Furthermore, they can frequently be accounted for with reference to alternative forces,⁵ and finally, no instances of “complete reversals of grammaticalization” have been discovered so far (cf. Newmeyer 1998: 263).

Grammaticalization begins with concrete, lexical forms and constructions and ideally ends in zero – that is, grammatical forms increasingly

⁴ Cf., e.g., Harris and Campbell (1995: 338), who summarize this situation thus: “there is a strong tendency for grammaticalization to proceed in one direction, though it is not strictly unidirectional.” Similarly, Joseph and Janda (1988: 198–200) observe that cases of demorphologization, a process that would contradict the unidirectionality principle, are rare and not seldom controversial. Finally, Newmeyer (1998: 275–6, 278) observes that cases conforming to the unidirectionality principle (“downgradings”) “have occurred at least ten times as often as upgradings,” and he concludes, “I suspect that, for whatever reason, there is a *general* directionality to the semantic changes observed in grammaticalization” (emphasis in original).

⁵ Such forces may be morphophonological or morphosyntactic in nature, but they may as well relate to specific sociocultural factors. Burridge (1995) discusses an example of reversed directionality in Pennsylvania German, where a modal auxiliary developed into a lexical verb, *wotte* ‘wish’. As Burridge shows, one factor contributing to this development can be found in the particular Mennonite religious principles held by the speakers of Pennsylvania German.

lose in semantic and phonetic content and, in the end, they may be replaced by new forms; grammaticalization has therefore been described as a cyclical process (Givón 1979a; Heine and Reh 1984).⁶ While there is some evidence to support this assumption, we have to be aware that, first, a grammaticalization process can stop at any point of development and, second, “worn-out” grammatical forms are not necessarily replaced by new forms. Thus, the metaphor of a grammatical cycle, though useful in certain cases, should not be generalized since it often does not apply for some reason or other.

In a number of works, grammaticalization is described as a process that involves the reanalysis of grammatical categories.⁷ Other authors have argued that there is no necessary relationship between grammaticalization and reanalysis (see especially Haspelmath 1998). In fact, reanalysis has been defined in a number of different ways (cf. Langacker 1977; Heine and Reh 1984; Harris and Campbell 1995: 61–96; Haspelmath 1998; Newmeyer 1998: 241–51). Whether grammaticalization involves reanalysis has turned out to be essentially a theory-dependent issue. To avoid any further confusion on this issue, we prefer to exclude “reanalysis” from our terminology of grammaticalization theory.

1.2 Problems

Grammaticalization is a complex subject matter; it relates in much the same way to diachronic and synchronic linguistics as to semantics, syntax, and morphology, and it is rooted in cognition and pragmatics. Obviously, an endeavor such as that found here is an ambitious one – one that has to take care of a wide range of problems. In this section we deal with the most serious of these problems in turn.

The findings presented in this work are meant to highlight processes of human behavior that can be observed across cultures; yet, these findings are based on data from hardly more than one-tenth of the world’s languages. One may therefore wonder what justification there is to call this work a “world lexicon.” Our main reason is this: underlying human behavior there appears to be a strategy of linguistic processing whereby more abstract functions are expressed in terms of forms for concrete concepts. We expect, for example, that in some unknown language there are

⁶ Givón (1979a: 209) proposed the unidirectional cycle in (i), where the end point (Zero) marks the beginning of a new cycle again leading from Discourse to Zero:

(i) Discourse > Syntax > Morphology > Morphophonemics > Zero.

⁷ Newmeyer (1998: 238), for example, argues, “The standard definition of grammaticalization incorporates the notion of reanalysis; no definition that does not do so seems particularly useful.”

ways of expressing temporal concepts in terms of spatial ones, spatial relations in terms of forms for concrete concepts (such as body parts or salient landmarks), aspectual contours of events in terms of forms for actions and motions, or functions concerning the organization of texts in terms of linguistic forms for spatial or temporal deixis. Languages differ considerably in the way and the extent to which this strategy has given rise to grammaticalized constructions; nevertheless, we expect the effects of this strategy to be essentially the same across languages, including languages that are still undocumented.

Throughout this work we are concerned with the relation between two kinds of concepts, which we refer to as the “source” and “target” entities of grammaticalization. We convey the impression in this account that there is always a unidirectional development leading from one distinct entity to another entity. But this is not only a simplified account; it is also at variance with much of what we have argued for elsewhere, namely that, rather than being a development in discrete steps, grammaticalization must be described as a continuous or, more precisely, as a chainlike development (Heine 1992). To achieve the goal of having a treatment of grammaticalization processes in the form of a lexicon, we were forced to reduce continuous, chainlike structures to two salient uses of forms, viz., source and target uses.

Most of the over 400 grammaticalization processes discussed in this book are based on fairly reliable reconstruction work, but in some cases the evidence available is not yet satisfactory. We have pointed out such cases under the relevant entry.

A number of developments leading to the evolution of grammatical categories do not involve linguistic units like words or morphemes (Heine 1993; Bybee et al. 1994; Bisang 1998a); rather, they concern more complex conceptual entities, such as phrases, whole propositions, or even larger constructions. For example, the temporal conjunction *taátenu* ‘then’ of Kxoe, a Central Khoisan language of Namibia, is historically a clause meaning ‘when it is like that’ (see (1)).

- (1) *ta- á- te- nu xavána //é kúùn-à- tè*
 be:thus-JUNC-PRES-when again 1:M:PL go- JUNC-PRES
 ‘Then we went again. . . .’

A much better known example concerns the evolution of aspect and tense categories, where two or more different linguistic forms may simultaneously be involved: an auxiliary (e.g., *be* or *have*), a nonfinite marker (e.g., an infinitival, participial, or gerundival marker), and perhaps also a locative marker. Tense and aspect constructions in a number of languages worldwide not uncommonly involve three distinct morphological

elements, the English future marker *be going to* being a paradigm example. Another European example is the Latin verb *habere* ‘to have’, which in the Romance languages has given rise to perfect markers on the one hand and to future markers on the other. What accounts for this divergent development? The verb *habere* was not itself grammaticalized; rather grammaticalization involved entire periphrastic constructions, or event schemata: the construction *habere* + perfect passive participle gave rise to perfect expressions, while *habere* + infinitive periphrasis was responsible for the development of future constructions. In a lexicon project like the present one, such propositional structures had to be reduced to the salient segments of the constructions concerned, such as the *habere*-markers figuring in the expression of future tenses in Romance languages.

A related problem that we encountered concerns what one may call “complex grammaticalization”: a more complex linguistic structure can assume a grammatical function without involving the grammaticalization of any particular item figuring in this structure. Take (1) again: which of the various items figuring in the Kxoe word *taátenu* should be held responsible for the relevant grammaticalization? The most obvious answer would be that, rather than any particular item, the structure as a whole is responsible. In a treatment of the kind attempted here, however, which rests on the assumption that there is essentially a one-to-one correspondence between source and target, such an answer is not entirely satisfactory. What exactly should the lexicon entry be that takes care of this grammaticalization? Or take the following example: one widespread way of developing expressions for the grammatical concept of a comparative of inequality is to juxtapose two propositions that are in a polar contrast – one expresses the standard of comparison and the other the comparative notion. This opposition may be either antonymic, as in (2), or marked by the distinction of positive versus negative, as in (3).

Cayapo (Stassen 1985: 184)

- | | | | | | | | |
|-----|------------|-----------|--------------|----------------|-----------|----------|-------------|
| (2) | <i>Gan</i> | <i>ga</i> | <i>prik,</i> | <i>bubanne</i> | <i>ba</i> | <i>i</i> | <i>pri.</i> |
| | you | you | big | but | I | I | small |
- ‘You are bigger than I am.’

Abipon (Stassen 1985: 184)

- | | | | | | | | |
|-----|-----------------|-------------|-------------|--------------|------------------|-----------|-------------|
| (3) | <i>Negetink</i> | <i>chik</i> | <i>naâ,</i> | <i>oagan</i> | <i>nihirenak</i> | <i>la</i> | <i>naâ.</i> |
| | dog | not | bad | yet | tiger | already | bad |
- ‘A tiger is more ferocious (lit.: ‘bad’) than a dog.’

What is grammaticalized in such constructions is not a specific element but rather some propositional relation, viz., *be big* versus *be small*, or *be*

bad versus *not be bad*. In a treatment like this book, which is concerned with segmentable linguistic forms, functions expressed by means of pragmatic or syntactic relations between forms without involving morphological segments of necessity had to be excluded.

The sentence in (3) raises another question: At which point can we say that grammaticalization has been concluded? Can we really say that (2) and (3) are suggestive of a completed process of grammaticalization, or do they merely represent contextually induced interpretations that are irrelevant for the grammatical structures of the languages concerned? A number of tests have been proposed in grammaticalization theory to deal with this question; frequently, however, the information available on a given language is not sufficient to allow for a successful application of these tests. In such cases we have decided to adopt the solution proposed by the author(s) dealing with that language.

In some cases we decided to rely on comparative findings to determine whether a grammaticalization process has been concluded. For example, one of our entries has the form ONE > INDEFINITE, according to which the cardinal numeral for 'one' may grammaticalize to indefinite articles. Now, it has been argued, for languages like English (*a(n)*) or German (*ein*), for example, that the two, numeral and indefinite article, are the same, their difference being due to contextual or other factors; that is, that the relevant entry is not an instance of grammaticalization. That the two meanings are in fact different is suggested by comparative observations. Thus, there are languages where a given linguistic item serves as an indefinite marker but not as a numeral, and, conversely, there are many languages where a given item denotes the numeral 'one' but not indefinite reference. We take such observations as evidence that ONE and INDEFINITE are in fact different concepts, even if in some languages the same or a similar word is used for both.

Another problem concerns the directionality of grammaticalization and how to achieve historical reconstruction. How do we know that INDEFINITE is historically derived from ONE rather than the other way around? In this case, there is diachronic evidence to give an answer: in some languages, including a number of European ones, there is a marker that is used for both the numeral 'one' and the indefinite article, and by using historical records it is possible to establish that at some earlier stage in the development of these languages the item only served as the numeral expression before its use was extended to also designate indefinite reference. Now, since grammaticalization is essentially unidirectional, we are led to assume that in languages where no historical records are available the evolution was the same.

Even in the absence of historical documents it is possible to reconstruct directionality of change by using the mechanisms sketched in the preceding section. For example, decategorialization has the effect that the element concerned loses in morphosyntactic properties characteristic of its less grammaticalized (e.g., lexical) source, such as the ability to take modifiers or inflections, and it shifts from a category having many members (e.g., an open class) to a category having only few members (a closed class). Erosion again means that that element tends to become shorter and/or phonetically less complex, to lose the ability to receive distinct stress or tone, and so on. Thus, if we find two different uses of a given element, or two etymologically related elements, where one shows the effects of decategorialization and erosion whereas the other does not, then we can argue that the latter is less grammaticalized and then reconstruct a directionality from the latter to the former, rather than the other way around. Even if we had no previous knowledge of the history of English we could nonetheless establish that the indefinite article *a(n)* is a later development form of the numeral *one*, rather than the reverse, since the article exhibits a number of effects of decategorialization and erosion while the numeral does not. In this text we use this kind of evidence for reconstruction in addition to any kind of historical evidence that may be available.

Grammaticalization does not occur in a vacuum, and other forces also shape the evolution of grammatical forms, language contact being one. The rise of a new grammatical expression may be the result of grammaticalization, but it may also be due to the influence of another language. The question of whether, or to what extent, a given development is from language-internal as opposed to language-external factors can frequently not be answered satisfactorily. Recent studies suggest that both are often simultaneously involved.

These observations led us to the question of whether any restriction in the kind of linguistic transmission should be imposed when selecting the data to present in this volume. For example, should instances of grammaticalization that clearly occurred due to borrowing be excluded? Should we separate such cases from instances of grammaticalization that have to do with continuous transmission within a given language?

A perhaps related issue concerns pidgins and creoles, which are a gold mine for students of grammaticalization, and throughout the 1990s a wealth of publications appeared demonstrating the relevance of grammaticalization theory to the study of these languages (see especially Baker and Sylea 1996). With the rise of pidgins and creoles, the question again arises as to whether we are dealing with “natural” forms of transmission

and, if yes, whether grammaticalization processes behave the same way whether they have taken place, for example, between earlier and later forms of British English or between British English and Krio CE or Tok Pisin PE. The policy adopted here is to take all these kinds of data into account, at least as far as they are in accordance with principles of grammaticalization observed in “natural” language transmission. More recent research suggests that grammaticalization in pidgins and creoles does not behave essentially differently from that found in other languages. The reader is in a position to identify instances of borrowing or pidginization, or creolization, on the basis of the exemplification provided in this book.⁸

The terminology used to refer to grammatical categories differs from one author to another and from one language to another. Although we have tried to standardize terms, in many cases, this turned out to be impossible because of insufficient information. It is therefore to be expected that, in accordance with the conventions adopted by the relevant authors, one and the same grammatical function may be referred to by entirely different labels, both within a given language and across languages.

The quality of the data provided in this work crucially depends on the kind of information contained in the published sources that we were able to consult. Frequently it turned out that the information was not satisfactory. For example, when dealing with a verb as the source for a certain grammatical category, it is not enough to consider the lexical semantics of that verb; which grammaticalization it undergoes may depend entirely on its valency. In Southern Sotho, a Bantu language of Lesotho and South Africa, we find, among others, instances of grammaticalization like those presented in (4).

Southern Sotho (Bantu, Niger-Congo; Doke and Mofokeng [1957] 1985)

| (4) Verbal source | Grammatical form |
|-------------------|-----------------------------|
| -ea ‘go (to)’ | -ea- immediate future tense |
| -tla ‘come (to)’ | -tla- future tense |
| -tsoa ‘come from’ | -tsoa- immediate past tense |

These examples suggest that it is not the deictic semantics of ‘come’ or ‘go’ that can be held responsible for the particular functions the result-

⁸ Pidgin (P) and creole (C) examples are marked by adding abbreviated labels after the language name. For example, “CE” stands for “English-based creole” (see Abbreviations). Note that the classification underlying this usage is a crude one, since terms like “English-based,” “Portuguese-based,” etc. are not unproblematic, and the boundary between pidgins and creole languages is not seldom fuzzy.

ing grammatical categories assume; rather, it is the kind of complements they take that determines their path of grammaticalization. If the verb takes an allative/goal complement, as in the case of Southern Sotho *-ea* and *-tla*, then the resulting function is future; if the verb takes an ablative/source complement, as in the case of *-tsoa*, then the result is a perfect or near past category (see Bybee, Pagliuca, and Perkins 1991). Unfortunately, most published sources that we were able to consult do not provide information of this kind. Due to such factors, our documentation must remain fragmentary in many cases.

This book is based on hypotheses on diachronic development. In a number of cases, these hypotheses have been adopted from the sources cited, but in others they were not contained in the relevant sources. For example, if in a given grammar the author states that the adverb ‘behind’ is “homophonous” with or “resembles” the noun ‘back’, or “may be historically related” to the noun ‘back’, then the assumption made here on the basis of a larger corpus of cross-linguistic data is that we are dealing with an instance of the grammaticalization of a body part noun to a locative adverb. The reader is therefore reminded that a given author whose work is cited as evidence for some reconstruction is not necessarily to be held responsible for the relevant reconstruction, such responsibility being entirely ours.

Perhaps the most crucial problem we were confronted with concerns directionality. As some recent works suggest, there are exceptions to the unidirectionality principle,⁹ and we certainly do not exclude the possibility that some of the reconstructions presented allow for an alternative analysis. Still, such cases are likely to be statistically insignificant: the tense markers listed in (4) can be assumed to be derived from verbs of motion, while we know of no language where there is compelling evidence that a verb meaning ‘go’ or ‘come’ is historically derived from a tense marker. Yet, the question of directionality is one that needs more attention in future work on grammaticalization.

This lexicon differs in a number of ways from Heine et al. (1993). Above all, whereas the discussion in Heine et al. (1993) was concerned with both the meaning and the morphosyntax of linguistic forms, we confine ourselves here to the analysis of grammatical “concepts.” Accordingly, no reference is made to the word or morpheme status of the items undergoing grammaticalization, unless there are specific reasons to do so.

All instances of conceptual shift are illustrated with examples from different languages whenever appropriate data were available. In a number

⁹ A number of exceptions to the unidirectionality principle have been pointed out in recent works (see Newmeyer 1998 for a detailed discussion).

of cases, however, such data could not be found, and we had to rely on hypotheses put forward by other authors. In such cases, the reader is referred to the bibliographical references added for further information.

Another problem we were constantly confronted with was the following: how many examples should be adduced to illustrate a given instance of grammaticalization? There was no problem in cases where only a handful or even fewer examples were found for a certain path of grammaticalization. But for the many cases where the number of possible examples turned out to be exceedingly high, we adopted the policy of reducing exemplification to cases that illustrate both the genetic and areal distribution and the contextual diversity associated with the relevant grammaticalization process. Accordingly, the examples presented here do not necessarily reflect the entire mass of evidence that we were able to assemble. Nevertheless, in the vast majority of cases the amount of exemplification presented immediately correlates with the present state of our knowledge; that is, a grammaticalization process that is amply documented tends to receive a more extensive treatment than one where only a handful of examples have been found so far.

We noted earlier in this chapter that in recent years quite a number of studies have appeared reporting on new processes of grammaticalization (see especially Heine et al. 1991). However, the data presented in this volume constitute but a fraction of all instances of presumed or actual grammaticalization that we were confronted with. There were two reasons for reducing the vast amount of reported processes. First, to strengthen the hypothesis that we are really dealing with cross-linguistic regularities of grammatical evolution, we concentrated on cases where examples from more than one language family were available, even if in the end we decided to also include a number of less widespread instances of grammaticalization whenever there were specific reasons to do so. Second, we eliminated those cases where we were not convinced that the data allowed for fairly reliable reconstruction work. Not all of the processes that have been proposed in the course of the last three decades are substantiated by appropriate empirical evidence. In fact, deciding on whether there is "appropriate empirical evidence" turned out to be one of the major problems we faced when working on this volume.

Finally, we were also confronted with a problem that most lexicographers are confronted with: the closer one gets to completing a lexicon the more one tends to become convinced that one is dealing with an open-ended project and that one is still far from having exhausted the subject matter. But this problem is perhaps even more serious here than in conventional works on lexicography since grammaticalization is a young and rapidly expanding field of research. The reader should therefore be aware

that what is covered in this book might represent merely the tip of the iceberg of what future generations of researchers might discover on this phenomenon.

1.3 Conventions

For a better understanding of the Source-Target lexicon, the following conventions should be borne in mind:

- (a) Entries contain two kinds of information. The first consists of data from different languages, especially from languages that, to our knowledge, are genetically “unrelated.” The second concerns our analysis of this information, that is, our classification and diachronic interpretation of these data. To distinguish these two, all information relating to the latter is printed in small capital letters. Items printed in small capitals each stand for a cluster of closely related meanings (or functions) that we assume to be suggestive of a cross-culturally relatively stable concept. The term “concept” is used as a pre-theoretical notion; no claim is made, for example, that the concepts presented are semantic primitives of any kind or that the label used to refer to a particular concept is suggestive of a prototypical manifestation of that concept.
- (b) To save space, the concept labels are kept as short as possible. Thus, instead of writing “ablative case marker,” or “ablative gram,” we simply use the label “ABLATIVE.”
- (c) Details on the cluster of meanings subsumed under the relevant concept label are provided in parentheses whenever this was felt to be desirable; this parenthetical information is maximally of three kinds. First, it may contain the concept that taxonomically includes the one preceding the parentheses. For example, the concept HEAD has the gloss ‘body part’ following it in parentheses, or ONE has ‘numeral’ added in parentheses. Such parenthetical information is presented in the index of grammatical concepts in Chapter 2. Whenever concepts are involved that do not figure in this index – that is, when lexical concepts are involved – this information is added in the main text (e.g., HEAD (body part)). Second, typical glosses are provided that one might expect to figure in English expressions for the given concept. Third, wherever necessary, these glosses are followed by further descriptive details on the relevant concept.
- (d) At the end of an entry, there may be more general comments relating to the nature of the grammaticalization process in question.

- (e) In the course of our work we were confronted with a number of orthographical issues and problems. As far as this was feasible, we rendered linguistic data in their original form, typically in the standard form used for the language (at least as far as the standard form is based on Roman script). For example, as one might expect, we are using the tilde to mark nasalized vowels (or consonants). There are, however, regional conventions that we also had to take into account. In Nama (of the Khoisan family), nasalized vowels are not marked by a tilde but rather by a circumflex (accent mark: ^); in the standard orthography of Kikuyu and Kamba there is again a tilde, but it does not mark nasalization but rather open vowels.
- (f) Wherever possible we present examples with interlinear glosses. Those printed in parentheses stand for glosses (and in a few cases also translations) that are not in the original examples; for these we take full responsibility. In some cases there were no glosses in the original nor were we able to find appropriate glosses ourselves. We nonetheless decided to include such examples, hoping that the reader interested in more details will consult the bibliographical references cited.
- (g) Our goal is to illustrate all examples with text material, where one text piece, marked by (a), would present the source use and a second text piece, marked by (b), the target use of the item. In most cases, however, no appropriate text material was available, and we had to be satisfied with presenting sentence examples or phrases, or with simply providing a target use without a corresponding source use. We hope that such inconsistency, which is inherent in comparative projects such as this one, is not an obstacle to the use of this work.

Grammatical Concepts Used in This Work

The following list is a classification of the grammatical concepts (or functions) figuring in this work, where the term concept is used in a pre-theoretical sense.¹ Since we will be dealing with concepts, terms such as *ABLATIVE OF COMPLEMENTIZER* stand for semantic-functional, rather than morphological or syntactic, categories. No attempt is made here to trace a boundary between “grammatical concepts” and nongrammatical or “lexical concepts.” If one finds concepts such as *ONLY OR TOGETHER*, for example, which one might not be inclined to treat as grammatical concepts, then we simply wish to say that these items exhibit more grammatical properties, or fewer lexical properties, than the concepts from which they are historically derived. Such properties relate in particular to the productivity, applicability to various contexts, and syntactic and paradigmatic status of the items. For example, grammatical forms are closed-class items, and whenever we found that a given concept is regularly derived from some closed-class item we decided to consider it a candidate for inclusion. Both *ONLY* and *TOGETHER* have the numeral *ONE* as one of their historical sources, and although numerals have a fairly large membership in some languages, they normally can be described as closed-class paradigms; hence we decided to tentatively include items such as these two in our treatment.

Furthermore, the characterizations and taxonomic labels that we propose are not intended to be definitions of the concepts; rather, they are meant to assist the reader in narrowing down the range of meanings that a given grammatical marker may convey (see, e.g., Bybee et al. 1994 for more details); in a number of cases, such characterizations consist of nothing but English translational equivalents – a procedure that certainly is far from satisfactory.

¹ We wish to express our gratitude to Beth Levin for many critical comments on the terms presented in this chapter.

In addition to the concept label, the reader will find additional labels in parentheses referring to taxonomically superordinate, more inclusive categories. Since a given concept may belong to more than one more inclusive category, more than one term may appear in parentheses. For example, the entry *ACROSS* (*SPATIAL, CASE*) stands for a concept *ACROSS*, which belongs to the concepts used for introducing nominal participants (*CASE*); at the same time, it is also part of the more inclusive category of *SPATIAL* concepts. Rather than reflecting a taxonomy of grammatical concepts, this parenthetical information is simply meant to provide more information on the uses of the primary concept. Yet, there will be cases where the reader may be puzzled as to the exact meaning of a given concept label; in such cases, we refer to the language data presented in the Source-Target lexicon (Chapter 3), where more information on the use of these labels can be found.

Many of the terms presented here are used by other authors to refer to somewhat different, or even to entirely different, concepts. Wherever we are aware of such contrasting uses we point them out in footnotes. It is unlikely, however, that we are aware of all the terminological conventions that exist, and we apologize to the reader for any inconvenience that may result from our terminological choices.

| <i>Concept Label</i> | <i>Approximate Gloss and Descriptive Notes</i> |
|--|---|
| ABLATIVE (SPATIAL, CASE) | ‘(away) from’; also ‘from above/below/inside’; marker introducing a spatial participant; direction from |
| ABLATIVE (TEMPORAL, CASE) | ‘from’, ‘since’; marker introducing a temporal (source) participant |
| ACCORDING TO (CASE, CONJUNCTION) | ‘according to’; marker introducing a nominal or clausal participant |
| ACROSS (SPATIAL, CASE) | ‘across’; marker introducing a locative participant |
| ADDITIVE | ‘plus’, ‘and’; marker introducing a quantifying participant |
| ADVERSATIVE ² (CONJUNCTION) | ‘but’, ‘however’, ‘nevertheless’; marker introducing an adversative participant |
| AFTER (TEMPORAL) | ‘later than’, ‘after’; marker introducing a temporal participant |

² Beth Levin (personal communication) points out that there are alternative uses of the term “adversative.”

| <i>Concept Label</i> | <i>Approximate Gloss and Descriptive Notes</i> |
|----------------------------|--|
| AGENT (CASE) | e.g., 'by'; marker for a participant that instigates or performs the action described by the main verb |
| AGREEMENT | marker of grammatical agreement, i.e., of the person, number, gender, or class, typically on the verb |
| ALLATIVE (SPATIAL) | 'to'; marker introducing an allative/directional participant; direction toward |
| ALREADY | 'already'; focus particle or marker |
| ALSO | 'also', 'too', 'as well'; marker modifying nouns and other categories |
| NP-AND (CONJUNCTION) | 'and'; noun phrase-conjoining marker |
| S-AND (CONJUNCTION) | 'and'; clause-conjoining marker |
| ANDATIVE | 'motion thither'; marker for a movement away from the speaker or deictic center; itive. Cf. VENITIVE |
| Anterior | see PERFECT |
| Antibenefactive | see MALEFACTIVE |
| ANTICAUSATIVE ³ | marker that typically reduces the valence of a verb by one participant, which as a rule is the agent |
| AROUND (SPATIAL, CASE) | 'round about', 'round and round'; marker introducing a locative participant |
| AVERTIVE (ASPECT) | 'almost, nearly'; marker for an action or event that was on the verge of taking place but did not take place. Cf. PROXIMATIVE |
| BEFORE (TEMPORAL, CASE) | 'before', 'earlier'; marker introducing a temporal participant |
| BEHIND (SPATIAL) | 'behind', 'back', 'in back of', 'after'; marker introducing a locative participant; "backterior" |
| BENEFACTIVE (CASE) | 'for', 'for the benefit of'; marker introducing a participant indicating that the action of the main verb is for the benefit or on behalf of someone else. Cf. MALEFACTIVE |

³ According to Haspelmath (1990: 33), an anticausative "denotes a spontaneous process without an implied agent, while the basic verb denotes a transitive action." Anticausative markers, which are not infrequently referred to as intransitivizing elements or intransitivizers, differ from passives in that no agent is implied.

| <i>Concept Label</i> | <i>Approximate Gloss and Descriptive Notes</i> |
|--------------------------------|--|
| BESIDE (SPATIAL, CASE) | 'beside', 'at the side of'; marker introducing a locative participant |
| CASE | marker used for introducing a nominal (or pronominal) participant |
| CAUSATIVE | 'cause to be', 'cause to do'; a marker for an agent that brings about the action or state it describes |
| CAUSE (CASE, CONJUNCTION) | 'because of', 'since', 'on account of', 'therefore'; marker introducing a participant of cause or reason |
| CERTAINTY (EPISTEMIC MODALITY) | 'it is certain that'; marker used by the speaker to emphasize that the proposition is true |
| CESSATIVE (ASPECT) | indicates that an event stops but not necessarily that it is completed. Cf. COMPLETIVE |
| CHANGE-OF-STATE | 'become', 'turn into'; inchoative, ingressive. Cf. RESULTATIVE |
| CLASSIFIER | classificatory particle; a general term referring to the specific system of formatives that consists of quantifiers, repeaters, and noun classifiers proper (cf. Senft 1996: 16) |
| COMITATIVE (CASE) | '(together) with'; marker introducing a comitative participant |
| COMMON (GENDER) | gender category that includes feminine and masculine, possibly also other concepts. Cf. NEUTER |
| COMPARATIVE (CASE) | 'than'; marker of standard in comparative constructions of inequality. See also EQUATIVE COMPARATIVE |
| COMPLEMENTIZER (CONJUNCTION) | 'that'; marker introducing complement clauses |
| COMPLETIVE (ASPECT) | indicates that something is done thoroughly and to completion. Cf. CESSATIVE |
| CONCERN (CASE, CONJUNCTION) | 'about', 'concerning'; marker introducing a nominal or clausal participant |
| CONCESSIVE (CONJUNCTION) | 'despite the fact that', 'even though'; marker introducing a concessive participant |
| CONDITIONAL (CONJUNCTION) | 'if'; marker of conditional protasis |
| CONJUNCTION | e.g., 'and', 'accordingly', 'but', etc.; marker used for conjoining clauses; clause connective, sentence connective |

| <i>Concept Label</i> | <i>Approximate Gloss and Descriptive Notes</i> |
|---------------------------------|---|
| CONSECUTIVE (CONJUNCTION) | 'and then', 'thereafter'; narrative discourse marker |
| CONTINUOUS (ASPECT) | 'be doing', 'keep on doing'; marker for an event that is in progress at reference time; this term combines the notions of both progressive and durative aspects |
| COPULA ⁴ | 'be'; predicate marker used in propositions of the type 'X is (a) Y'; identifying copula, classifying copula. See also EXIST; LOCATIVE COPULA |
| DATIVE (CASE) | 'to'; marker for – typically – a human recipient; indirect object |
| DEFINITE | 'the'; definite article; nominal determiner |
| DEMONSTRATIVE | 'this/these', 'that/those'; nominal determiner |
| DEONTIC (MODALITY) ⁵ | is concerned with necessity or possibility of acts performed by morally responsible agents; see OBLIGATION; PERMISSIVE |
| DIMINUTIVE | 'smaller than normal' |
| DISTAL (SPATIAL) | 'far away'; deictic marker for spatial distance. Cf. PROXIMAL |
| DOWN (SPATIAL) | 'down', 'below', 'under', 'underneath'; marker used to introduce a locative participant |
| DUAL (NUMBER) | marker for a number unit consisting of no more and no less than two items |
| Durative | see CONTINUOUS |
| EARLIER (TEMPORAL) | 'earlier', 'before', 'ago'; temporal marker |
| EGRESSIVE (ASPECT) | 'stop doing'; see also CESSATIVE |
| ELATIVE ⁶ | 'too', as in <i>too much</i> , <i>too big</i> , etc. Cf. SUPERLATIVE |
| EMPHATIC | marker expressing emphasis or contrast |
| Emphatic reflexive | see INTENSIVE-REFL |
| EPISTEMIC (MODALITY) | is concerned with the speaker's knowledge and beliefs about the state of affairs expressed in the utterance; see CERTAINTY; POSSIBILITY; PROBABILITY |

⁴ With the term COPULA, we are referring to a range of different predicative notions, including identification, classification, specification, and characterization (see Hengeveld 1992). Excluded are existential copulas (see EXIST) and locative copulas (see LOCATIVE COPULA).

⁵ Deontic modality has also been called "agent-oriented modality" (see, e.g., Bybee et al. 1994) or "root modality" (Coates 1995).

⁶ Note that this term is used in quite a different sense in the literature on case marking, where it refers to the notion 'out of'.

| <i>Concept Label</i> | <i>Approximate Gloss and Descriptive Notes</i> |
|--------------------------------|--|
| EQUATIVE | ‘as . . . as’; comparative marker of equality; |
| COMPARATIVE | comparison of equality |
| EQUATIVE COPULA | ‘be’, as in <i>John is a teacher</i> ; predicate marker |
| ERGATIVE | marker introducing the agent argument of a transitive verb in ergative languages |
| EVEN | ‘even’; scalar focus particle |
| EVIDENTIAL | marker used by the speaker to indicate the source of the information on which a given assertion is based. The term is generally used to describe devices indicating perceptual evidence (both direct and indirect) and devices indicating evidence that is obtained from someone else. |
| EVIDENTIAL, INFERENTIAL | marker adding the following nuance of meaning to a given utterance: ‘I have evidence that it happened, and I infer that it must have happened.’ |
| EXCLAMATION | e.g., ‘hi there!’ |
| EXCLUSIVE | ‘we excluding you’; a distinction made within (>) FIRST PERS-PRON, which excludes the hearer/addressee. Cf. INCLUSIVE |
| EXIST⁷ | ‘there is [X]’, ‘[X] exists’ |
| FEMALE | ‘female’; marker used as a nominal modifier to refer to female participants |
| FIRST (NUMERAL) | ‘(the) first’; ordinal numeral |
| FIRST (PERS-PRON) | ‘I’, ‘we’; first person pronoun |
| FIRST (TEMPORAL) | ‘at first’, ‘to begin with’ |
| FOCUS | marker used in sentences that focus on some participant, typically presenting that participant as new information |
| FREQUENTATIVE (ASPECT) | marker indicating that an event takes place frequently, i.e., neither once nor habitually |
| FRONT (SPATIAL, CASE) | ‘in front of’, ‘before’; marker introducing a locative participant; “fronterior” |
| FUTURE (TENSE) | ‘will’, ‘shall’; indicates that the speaker predicts an event to occur after the moment of speech |

⁷ EXIST includes what Hengeveld (1992) refers to as existence and reality. EXIST markers are typically one-argument predicates (e.g., *There is coffee*); however, they can also have two participants (e.g., roughly, *There is coffee for you*), which differ drastically from one-participant markers in their grammaticalization behavior.

| <i>Concept Label</i> | <i>Approximate Gloss and Descriptive Notes</i> |
|-----------------------------|---|
| FUTURE, NEAR (TENSE) | indicates that the speaker predicts an event to occur very soon after the moment of speech; near future, immediate future |
| HABITUAL (ASPECT) | 'do habitually'; marker for an event occurring habitually or usually, repeated on different occasions |
| HONORIFIC | marker of honorific reference |
| HORTATIVE | marker used by the speaker to encourage or incite someone to action |
| IMMEDIATE | see FUTURE, NEAR; PAST, NEAR |
| IMPERFECTIVE (ASPECT) | marker used to indicate that an event is viewed as unbounded temporally. Cf. PERFECTIVE |
| IMPERSONAL | marker for an agent that is suppressed but still understood |
| IN (SPATIAL) | 'in', 'inside', 'within'; marker introducing a locative participant; interior |
| IN (TEMPORAL) | 'in', 'within', 'during'; marker introducing a temporal participant |
| INCEPTIVE (ASPECT) | 'start doing', 'begin doing'; inceptive, ingressive |
| Inchoative | see CHANGE-OF-STATE |
| INCLUSIVE | 'we including you'; a distinction made within (>) FIRST PERS-PRON, which includes the hearer/addressee; cf. EXCLUSIVE |
| INDEFINITE | 'a, an'; indefinite article; nominal determiner |
| INDEFINITE PRONOUN | 'something', 'someone', etc. |
| Ingressive | see CHANGE-OF-STATE |
| INSTEAD (CASE, CONJUNCTION) | 'instead of'; marker introducing a nominal or clausal participant; replacive |
| INSTRUMENT (CASE) | 'with', 'by means of'; marker used to present a participant as an instrument |
| INTENSIFIER | 'very', 'extremely' |
| INTENSIVE-REFL | '-self', as in <i>The king himself</i> , <i>The king did it himself</i> ; emphatic reflexive, intensifier, identifier |
| INTENTION | 'to intend to' |
| Interrogative | see S-QUESTION, W-QUESTION |
| ITERATIVE (ASPECT) | 'do repeatedly'; repetitive; marker indicating that an action is repeated |
| LATE (TEMPORAL) | 'be late (be delayed)' |
| LATER (TEMPORAL) | 'then', 'thereafter', 'afterwards', 'later' |
| LOCATIVE | marker introducing a locative participant |

| <i>Concept Label</i> | <i>Approximate Gloss and Descriptive Notes</i> |
|-----------------------------------|---|
| LOCATIVE COPULA | 'be at', 'be somewhere'; predicate marker used in propositions of the type 'X is (located) at Y' |
| LOGOPHORIC | marker used in indirect quotes referring to the person being quoted; designating a particular category of anaphoric pronouns, personal and possessive, which refer to the author of a discourse or to a participant whose thoughts are reported |
| MALE | 'male'; marker used as a nominal modifier to refer to male participants |
| MALEFACTIVE (CASE) | 'to the detriment of'; marker for a participant indicating that the action of the main verb is to the detriment of someone else; antibenefactive. Cf. BENEFACTIVE |
| MANNER (CASE, CONJUNCTION) | marker introducing a manner participant |
| MATERIAL (CASE) | 'from', 'with'; marker for a participant typically indicating the material from which an object is made |
| MIDDLE ⁸ | marker indicating that the patient of the action is implicated as contributing to the action in some way |
| MIRATIVE ⁹ | marker used for utterances reporting information that is new or surprising to the speaker regardless of whether the information source is first- or secondhand |
| NEGATION | 'not', 'no'; marker of negation |
| NEGATION, EXIST | 'there is not/no' |
| NEUTER (GENDER) | a gender category that is neither feminine nor masculine. Cf. COMMON |
| NEXT | 'the next', 'the following' |
| NO | 'no'; interjection |

⁸ Kemmer (1993: 238) observes, "The semantic middle is a coherent but relatively diffuse category that comprises a set of loosely linked semantic sub-domains centering roughly around the direct reflexive." It remains unclear whether we are really dealing with a distinct functional notion (Beth Levin, personal communication); we are including it tentatively on account of the discussion in Kemmer 1993.

⁹ Here we accept the standpoint taken by DeLancey 1997 that the mirative represents a category of its own. This view is radically different from the one presented in Lazard 1999, where the mirative is treated as one of the three "values" of a more abstract category of "mediative," the other two values being hearsay and inference.

| <i>Concept Label</i> | <i>Approximate Gloss and Descriptive Notes</i> |
|--------------------------------------|--|
| NO LONGER | 'no longer' |
| NOT YET | 'not yet' |
| NP-and | see AND |
| Object marker | see PATIENT |
| OBLIGATION (DEONTIC MODALITY) | 'have to', 'should', 'must'; the agent is presented as being obliged to perform the action of the main verb |
| OBVIATIVE | marker indexing a change in the subject; switch reference |
| ONE (NUMERAL) | 'one'; cardinal numeral |
| ONLY | 'alone', 'merely', 'just' |
| OPTATIVE | the proposition represents the speaker's will |
| OR (CONJUNCTION) | 'or'; alternative marker, conjoining noun phrases or clauses |
| OTHER | 'another', 'other' |
| OUT (SPATIAL) | 'out', 'outside' |
| PARTITIVE (CASE) | marker introducing a participant expressing the notion 'a part of' or 'partly affected' |
| PASSIVE | a marker indicating that the action is viewed from the perspective of the recipient or patient of the verb, while the agent is suppressed or demoted |
| PAST (TENSE) | indicates that an event occurs before the moment of speech |
| PAST, NEAR (TENSE) | an event that occurred immediately before the moment of speech; recent past, near past, immediate past |
| PATH (SPATIAL, CASE) | 'through', 'via'; marker introducing a locative participant; path marker |
| PATIENT (CASE) | marker for a participant that is the undergoer of the action denoted by the verb; direct object |
| PERFECT¹⁰ (ASPECT) | marker indicating that a past event is relevant to the situation at reference time; anterior |
| PERFECTIVE (ASPECT) | marker used to indicate that an event is viewed as bounded temporally. Cf. IMPERFECTIVE |
| PERMISSIVE (DEONTIC MODALITY) | 'be allowed to'; the agent is allowed to do the action of the main verb |

¹⁰ Our term "perfect" corresponds to what Bybee et al. (1994) call the "anterior."

| <i>Concept Label</i> | <i>Approximate Gloss and Descriptive Notes</i> |
|------------------------------------|---|
| PERS-PRON (PRONOUN) | personal pronoun, pronominal marker. See also FIRST; SECOND; THIRD |
| PLURAL (NUMBER) | plural marker, typically on nouns |
| A-POSSESSIVE | 'of'; marker of attributive (nominal) possession; genitive case, associative, connective, nominal possessive. (For description of term, see Heine 1997a.) |
| B-POSSESSIVE | 'X belongs to Y', 'X is Y's'; predicative possession, marker of <i>belong</i> -constructions. (For description of term, see Heine 1997a.) |
| H-POSSESSIVE | 'have', 'own'; predicative possession, marker of possessive <i>have</i> -constructions. (For description of term, see Heine 1997a.) |
| POSSIBILITY (EPISTEMIC MODALITY) | 'it is possible that'; marker expressing that the speaker indicates that the situation described in the proposition is possibly true |
| PRESENT (TENSE) | marker indicating an event is occurring simultaneously with the moment of speech |
| PROBABILITY (EPISTEMIC MODALITY) | 'it is likely that'; with such markers, the speaker indicates that the situation described in the proposition is probably true |
| Progressive | see CONTINUOUS |
| PROHIBITIVE | 'don't do!'; negative imperative |
| PRONOUN | a marker standing for a noun or noun phrase |
| PRO-VERB | semantically empty predicate marker standing for other verbs in certain contexts; e.g., <i>do</i> as in <i>do jogging</i> |
| PROXIMAL (SPATIAL) | 'nearby', 'close to'; deictic marker for spatial proximity. Cf. DISTAL |
| PROXIMATIVE (ASPECT) ¹¹ | 'be about to', i.e., 'be on the verge of doing'. Cf. AVERTIVE |
| PURPOSE (CASE, CONJUNCTION) | 'in order to', 'so that'; a marker introducing the purpose of an action |
| S-QUESTION | marker of polar (yes-no) questions |
| W-QUESTION | 'who?', 'what?', etc.; marker of word questions |
| QUOTATIVE | a marker introducing direct speech |
| RECIPROCAL (PRONOUN) | 'each other'; a marker indicating that participants act upon each other |

¹¹ Note that this term is also used in some other ways; here it refers exclusively to an aspectual notion (see Heine 1994b).

| <i>Concept Label</i> | <i>Approximate Gloss and Descriptive Notes</i> |
|--|--|
| REFLEXIVE (PRONOUN) | 'self', as in <i>I saw myself in the mirror</i> ; the patient is the same entity as the agent (i.e., the two have identical reference) |
| RELATIVE (CONJUNCTION) | 'who', 'which', 'that'; marker introducing relative clauses |
| Repetitive | see ITERATIVE |
| RESULTATIVE (ASPECT)¹² | 'having reached a new state'. Cf. CHANGE-OF-STATE |
| S-and | see AND |
| S-question | see QUESTION |
| SAME | '(the) same', 'identical' |
| SECOND (PERS-PRON) | 'you', 'you all'; second person pronoun |
| SIDE (CASE) | 'by the side of', 'on the side of'; marker introducing a locative participant |
| SIMILE (CASE, CONJUNCTION) | 'like', 'as if', 'thus'; marker of simile or similarity participants; similitive |
| SINCE (TEMPORAL, CASE, CONJUNCTION) | 'since (the time when)'; marker introducing temporal participants |
| SINCE (CAUSAL, CONJUNCTION) | 'since, as, because'; marker introducing a causal participant |
| SINGULATIVE (NUMBER) | marker restricting the reference (of a noun) to a single entity |
| SOME (QUANTIFIER) | 'some'; approximative marker |
| SPATIAL (CASE) | marker introducing a spatial/locative participant |
| STILL | 'still'; focus particle or marker |
| SUBORDINATOR (CONJUNCTION) | marker introducing adverbial clauses |
| SUCCEED¹³ | 'manage to do', 'succeed in doing' |
| SUPERLATIVE | '(the) most'; marker for 'a position on top of or over'. Cf. ELATIVE |
| TEMPORAL | marker introducing a temporal participant |
| Terminative | see EGRESSIVE |
| THEN (TEMPORAL) | 'then', 'afterwards', 'later' |
| THERE (SPATIAL) | 'there'; deictic marker of distal location. Cf. DISTAL |
| THIRD (PERS-PRON) | 'he', 'she', 'it', 'they'; third person pronoun |

¹² RESULTATIVE is also used in other senses; here we use it exclusively as a term for a verbal aspect. Conceivably, RESULTATIVE and (>) CHANGE-OF-STATE can be grouped together.

¹³ While 'succeed' is typically encoded as a lexical item, some languages appear to treat it as a functional category.

| <i>Concept Label</i> | <i>Approximate Gloss and Descriptive Notes</i> |
|--|--|
| TOGETHER | 'together' |
| TRANSITIVIZER | marker transforming an intransitive verb into a transitive one |
| TRIAL (NUMBER) | marker for a number unit consisting of no more and no less than three items |
| TWO (NUMERAL) | 'two'; cardinal numeral |
| UNTIL (TEMPORAL, CASE, CONJUNCTION) | 'until', 'up to'; marker introducing a temporal participant |
| UP (SPATIAL) | 'up', 'on', 'above', 'over'; marker introducing a locative participant; "superior" |
| VENITIVE | 'motion hither', 'motion towards'; marker for a movement toward the speaker or deictic center; ventive. Cf. ANDATIVE |
| VP-and | see AND |
| W-question | see QUESTION |

Source–Target Lexicon

A

‘Abandon’ see LEAVE¹

ABILITY > (1) PERMISSIVE

This is a well-researched instance of grammaticalization (see, e.g., Traugott 1972: 198–9; Kytö 1987; Bybee et al. 1991: 25; Bybee et al. 1994: 187–94; Table 6.3). Old Chinese (*de* ‘to obtain’ >) *de* ability marker > permissive marker. Ex.

Middle Chinese (tenth century A.D.; Zutangji 5/98/7; quoted from Sun 1996: 121)

| | | | | | |
|---|------------|------------|-----------|----------------|------------|
| (a) <i>hai</i> | <i>jie</i> | <i>pan</i> | <i>de</i> | <i>xu-kong</i> | <i>bu?</i> |
| still | explain | judge | possible | empty | NEG |
| ‘Can (you) still tell what emptiness is?’ | | | | | |

Middle Chinese (tenth century A.D.; Zutangji 1/153/3; quoted from Sun 1996: 124)

| | | | | |
|-------------------------------------|-----------|-----------|------------|------------|
| (b) <i>ni</i> | <i>de</i> | <i>ru</i> | <i>men</i> | <i>ye.</i> |
| you | possible | enter | door | PART |
| ‘You may enter the door (to join).’ | | | | |

Archaic Chinese *neng* ‘be able’, ‘be capable’ > marker of possibility and permission (Alain Peyraube, personal communication). English *may* have started out with a meaning of physical ability or power and has come to be used to report permission (Bybee et al. 1994: 193). German *können* ‘to be able’ > ‘to be allowed to’. Ex.

German

| | | | |
|------------------------|-------------|-------------|------------------|
| (a) <i>Ich</i> | <i>kann</i> | <i>Auto</i> | <i>fahr- en.</i> |
| I | can | car | drive-INF |
| ‘I know how to drive.’ | | | |

¹ Concerning the meaning of grammatical concepts, see the list of grammatical concepts in Chapter 2.

- (b) *Kann* *ich* *geh-en?*
 can I go- INF
 'Can I/Am I allowed to go?'

Concerning a treatment of modality as a semantic map, see van der Auwera and Plungian 1998. See also GET; ABILITY > POSSIBILITY.

ABILITY > (2) POSSIBILITY

This again is a process that has been well described (see Bybee et al. 1994: 187–94; Table 6.3). Old Chinese (*de* 'to obtain' >) *de*, ability marker > possibility marker. Ex.

Middle Chinese (tenth century A.D.; Zutangji 5/98/7; quoted from Sun 1996: 121)

- (a) *hai* *jie* *pan* *de* *xu-kong* *bu?*
 still explain judge possible empty NEG
 'Can (you) still tell what emptiness is?'

Middle Chinese (tenth century A.D.; Zutangji 2/62/9; quoted from Sun 1996: 124)

- (b) *ji* *fu* *de* *cheng?*
 several axe possible succeed
 'How many (strikes of) the axes can do (it)?'

Archaic Chinese *neng* 'be able', 'be capable' > marker of possibility and permission (Alain Peyraube, personal communication). German *können* 'to be able' > 'to be possible'. Ex.

German²

- (a) *Er* *kann* *Französisch.*
 he can French
 'He knows French.'
- (b) *Er* *kann* *Franzose* *sein.*
 he can French be
 'He could be French.'

Seychelles CF *kapab* 'be able to do', ability > 'may be', marker of possibility. Ex.

Seychelles CF (Corne 1977: 136)

- (a) *i* *pu* *kapab* *fer* *sa.*
 (3:SG FUT be:able do that)
 'He will be able to do it.'
- (b) *i* *n* *kapab* *ariv* *kek* *aksidâ.*
 (3:SG CPL be:able happen some accident)
 'There may have been an accident.'

² The directionality of the German item *können* 'be able, know how to do, can' has not been established beyond reasonable doubt.

Bybee et al. (1994: 194) reconstruct the following path of grammaticalization for English: ability > root possibility > permission. The development from ABILITY to POSSIBILITY can be interpreted as an instance of a more general process whereby concepts of deontic (or agent-oriented or root) modality develop into concepts of epistemic modality. There are various hypotheses on how this process is to be explained. According to the one perhaps most frequently voiced, the development from deontic to epistemic meanings is suggestive of metaphorical transfer (see, e.g., Sweetser 1982; Bybee and Pagliuca 1985: 73; Heine et al. 1991: 175–8). Sweetser (1990: 52) argues that this development can be accounted for in terms of “sociophysical concepts of forces and barriers,” and Traugott (1989) suggests that we are dealing with an instance of subjectification in semantic change (see also Hopper and Traugott 1993: 86). For a treatment of modality as a semantic map, see van der Auwera and Plungian 1998. Compare DEONTIC MODALITY > EPISTEMIC MODALITY; OBLIGATION > PROBABILITY. See also ABILITY > PERMISSIVE; GET.

ABLATIVE > (1) AGENT

German *von* ‘from’, ablative preposition > agent marker in passive constructions. Ex.

German

- (a) *Sie* *kommt* *vom* *Bahnhof.*
 she comes from:the station
 ‘She is coming from the station.’
- (b) *Sie* *wird* *vom* *Staat* *bezahlt.*
 she becomes from:the state paid
 ‘She is paid by the government.’

Krongo *nkA-*, *nkí-*, ablative marker (ABL) > agent marker in passive constructions (rarely used). Ex.

Krongo (Reh 1985: 149, 229)

| | | | | | | |
|-----------|-------------|--------------|--------------|-----------|-------------|-------------|
| <i>n-</i> | <i>ác-</i> | <i>èetá-</i> | <i>átíńí</i> | <i>nì</i> | <i>nkà-</i> | <i>káaw</i> |
| NEUT- | PART- | kill- | PASS | snake | ABL- | person |
| <i>y-</i> | <i>ikkì</i> | | | | | |
| M- | that | | | | | |

‘The snake has been killed by that man.’

Bulgarian *ot* ‘from’, ablative preposition > agent marker in passive constructions (Maslov 1982: 326). Ex.

Bulgarian

- (a) *Toj* *idva* *ot* *basejna.*
 he come:3:SG:RES from swimming:pool:DEF
 ‘He is coming from the swimming pool.’

- (b) *Tazi kartina e narisuvana ot*
 this picture is draw:PAST:PASS:PARTCP from
Picasso.
 Picasso
 'This picture is painted by Picasso.'

This grammaticalization is presumably related to another one whereby agents are encoded as locative participants, and both are probably part of a more general process whereby agents in passive constructions are expressed in terms of spatial concepts. See also COMITATIVE; HAND; LOCATIVE.

ABLATIVE > (2) COMPARATIVE

Latin ablative case suffix > standard marker in comparative constructions 'than'. Ex.

Latin (Stassen 1985: 27)

| | | | |
|-------------|------------------|--------------------|-------------|
| <i>Cato</i> | <i>Ciceron-e</i> | <i>eloquentior</i> | <i>est.</i> |
| Cato:NOM | Cicero- ABL | more:eloquent | is |

'Cato is more eloquent than Cicero.'

Bulgarian *ot* 'from', ablative marker > 'than', standard marker in comparative constructions. Ex.

Bulgarian

- (a) *Toj idva ot basejna.*
 he come:3:SG:RES from swimming:pool:DEF
 'He is coming from the swimming pool.'
- (b) *Toj trjabva da e po- mlad*
 he must to be:3:SG:PRES more- young
ot neja s edna- dve godini.
 from her with one- two years
 'He must be younger than her by a couple of years.'

Tibetan *-nas* 'from' > marker of standard noun phrases in comparative constructions 'than'. Ex.

Tibetan (Stassen 1985: 115)

| | | | |
|-----------------|-------------|-----------------|-------------|
| <i>Rta- nas</i> | <i>khyi</i> | <i>chun- ba</i> | <i>yin.</i> |
| horse-from | dog | small-one | is |

'A dog is smaller than a horse.'

Turkish *-den, -dan* ablative suffix > 'than', comparative marker (nominal suffix). Ex.

Turkish (Rühl 1970: 25; Lewis [1967] 1985: 54)

- (a) *ev- den çıkacak.*
 house-ABL go:3:SG:FUT
 'He will leave the house.'

- (b) *kuřsun-dan* *ađir*
 lead- ABL heavy
 ‘heavier than lead’

Aranda *-nge*, ablative case suffix > ‘than’, marker of standard noun phrases in comparative constructions. Ex.

Aranda (Wilkins 1989: 185–6)

- (a) *Re* *pmere-nge* *lhe-ke* *lhene- werne.*
 3:SG:SUBJ camp-ABL go- PAST:CPL creek:bed-ALL
 ‘He went from the camp to the creek.’
- (b) *Kwementyaye* *kele* *anteme* *atyenge- nge* *arlpenty-ulker.*
 Kwementyaye OK now 1:SG:DAT-ABL tall- more
 ‘Kwementyaye is already taller than I am.’

That, cross-linguistically, ABLATIVE markers do in fact form one of the most common, if not the most common, means of encoding standard noun phrases in comparative constructions has been demonstrated by Stassen (1985; see also Heine 1997b). This grammaticalization appears to be an instance of a more general process whereby spatial concepts are used as structural templates to express the standard of comparison; compare LOCATIVE; UP.

ABLATIVE > (3) MATERIAL

Bulgarian *ot* ‘from’, ablative marker > marker of material. Ex.

Bulgarian

- (a) *Toj* *idva* *ot* *basejna.*
 he come:3:SG:PRES from swimming:pool:DEF
 ‘He is coming from the swimming pool.’
- (b) *Tazi* *bluza* *e* *ot* *koprina.*
 this blouse is from silk
 ‘This blouse is made from silk.’

Yagaria *-loti*’, *-toti*’, instrumental suffix > ‘from’, marker of material. Ex.

Yagaria (Renck 1975: 43)

- yavá-toti*’ *lu*’ *elo* *hi-d- a- e.*
 stone-from axe make-PAST-3:PL-IND
 ‘They made axes from stone.’

Lezgian *-kaj* ‘from below’, ‘from’, subelative (SUBEL) marker, nominal suffix > ‘out of’, marker of material. Ex.

Lezgian (Haspelmath 1993: 97)

- Werg-* *eri-kaj* *awu- nwa- j* *čigirtma*
 nettle- PL-SUBEL make-PERF-PARTCP ČIGIRTMA

| | | | | | |
|--------------|------------|----------|-------------|-----------------|-----------|
| <i>ajal-</i> | <i>ri-</i> | <i>z</i> | <i>gzaf</i> | <i>k'an-da-</i> | <i>j.</i> |
| child- | PL- | DAT | much | like- | FUT-PAST |

'The children liked *čigirtma*, (a dish) made out of stinging nettles, a lot.'

More research is required on the exact nature and the genetic and areal distribution of this process.

ABLATIVE > (4) PARTITIVE

French *de* 'from', preposition > partitive marker. German *von* 'from', preposition > partitive marker. Ex.

German

| | | | | | |
|------------|------------|------------|----------------|------------|--------------|
| <i>Gib</i> | <i>mir</i> | <i>ein</i> | <i>bißchen</i> | <i>vom</i> | <i>Käse!</i> |
| give | me | a | bit | from:the | cheese |

'Give me a bit of the cheese!'

Bulgarian *ot* 'from', ablative marker > *ot* partitive marker. Ex.

Bulgarian

- (a) *Toj idva ot basejna.*
 he come:3:SG:PRES from swimming:pool:DEF
 'He is coming from the swimming pool.'
- (b) *polovinata ot šakrovišteto*
 half:DEF from treasure:DEF
 'half of the treasure'

Lezgian *-kaj* 'from below', 'from', subrelative marker (nominal suffix) > 'of' partitive marker. Ex.

Lezgian (Haspelmath 1993: 97)

| | | | | | | |
|-----------------|-------------|----------------------|--------------|----------------|--------------|-----------|
| <i>Kursant-</i> | <i>ri-</i> | <i>kaj</i> | <i>gzaf-</i> | <i>buru</i> | | |
| cadet- | PL- | SUBEL | many- | SBST:PL(ERG) | | |
| <i>ruš-</i> | <i>ari-</i> | <i>q^h</i> | <i>galaz</i> | <i>q'üler-</i> | <i>zawa-</i> | <i>j.</i> |
| girl- | PL- | POESS | with | dance- | IMPFV- | PAST |

'Many of the cadets were dancing with girls.'

In Krongo, the ablative marker *nkí*, *nkA-* has a partitive function when used in adnominal expressions. Ex.

Krongo (Reh 1985: 149)

| | | | |
|-----------------|--------------|----------------|----------------------|
| <i>k -ábàlà</i> | <i>kàlyá</i> | <i>nkànáày</i> | <i>ncáarè; . . .</i> |
| PL-IMPV:play | children | ABL:3:PL | CONP:PL:TWO |

'Two of the children play; . . .'

Finnish separative (ablative) case *-*tA* marker > partitive marker. Ex.

Finnish (Huumo 1999)

- (a) *kotoa*
 'from home'

- (b) *Elmeri löys-i mansiko- i- ta.*
 Elmer find-3:SG:PAST strawberry-PL-PARTV
 ‘Elmer found strawberries.’

The modern Basque partitive *-(r)ik* appears to derive from an earlier ablative. Ex.

Basque (anonymous reader)

- (a) *Maulerik*
 Maule-(r)ik
 Maule-ABL
 ‘from Maule’
- (b) *Ez daukat dirurik.*
 Ez da- uka- t diru- (r)ik
 NEG PRES-have- 1:SG:ERG money- PARTV
 ‘I don’t have any money.’

Harris and Campbell (1995: 339–41) observe that the “development of a partitive out of the expression of a partial through a genitive or through a locative (in roughly the meaning ‘from’) . . . is a good candidate for a unidirectional change, to which we know no counterexamples.” See also Harris and Campbell 1995: 362–3 for examples from Finno-Ugric. Since PARTITIVE markers may go back to (>) A-POSSESSIVE markers and the latter to ABLATIVE markers (see ABLATIVE > A-POSSESSIVE), we seem to be dealing with a more general grammaticalization chain: ABLATIVE > A-POSSESSIVE > PARTITIVE. Whether there is always an intermediate A-POSSESSIVE stage in this evolution is not entirely clear; as appears to be the case in some other grammaticalization processes, the evolution may proceed straight from the initial to the final meaning.³ Note, however, that “partitive” does not appear to be a unified notion (Martin Haspelmath, personal communication).

ABLATIVE > (5) NEAR PAST

French *venir de* ‘to come from’ > near past tense marker.⁴ Ex.

French

- (a) *Je viens de Lyon.*
 I come from Lyon
 ‘I come from Lyon.’
- (b) *Je viens de manger.*
 I come from eat:INF
 ‘I’ve just eaten.’

³ The latter is suggested by observations made by Harris and Campbell (1995: 363), who note, e.g., with reference to the evolution in Mordvin: “The Mordvin ablative can be used as a ‘restricting’ object case, for example where “to eat of/from bread” develops the meaning “eat some (of the) bread”, from which the grammatical function of the partitive case developed.”

⁴ Note that ABLATIVE markers are not uncommonly derived from verbs meaning (>) ‘come from’.

Kala Lagau Ya -*ngu* ablative case marker > yesterday past marker (Blake 1994: 183).

Pitta-Pitta (Blake 1994: 182)

Tatyi-ka- inya nganytya.
eat- NOMIN-ABL I
'I've just eaten.'

French *sortir* 'come out' > Haitian CF *sòti* 'come (from)', *sòt(i)* 'to have just done'. Ex.

Haitian CF (Hall 1953: 55)

| | | | | | | |
|------------|------------|------------|-------------|-------------|-------------|-------------|
| <i>l-</i> | <i>fèk</i> | <i>sòt</i> | | <i>rivé</i> | <i>kéyi</i> | <i>gnou</i> |
| (3:SG-TAM | | come:from | | arrive | gather | a |
| <i>kòk</i> | <i>vin</i> | <i>bâ</i> | <i>mwê.</i> | | | |
| nut | come | give | 1:SG) | | | |

'He has just gathered a nut for me.'

More research is required on the genetic and areal distribution of this process. Underlying this grammaticalization there appears to be a process whereby a tense (or aspect function) is expressed in terms of physical, spatial motion; compare COME TO > FUTURE; COME TO > PROXIMATIVE; GO TO.

ABLATIVE > (6) A-POSSESSIVE⁵

Latin *de* 'from' (ablative preposition) > French *de*, marker of attributive possession ('of'), Catalan *de*, genitive marker. Ex.

Catalan (anonymous reader)

| | | | |
|-----------|-------------|-----------|--------------|
| <i>la</i> | <i>casa</i> | <i>de</i> | <i>Pedre</i> |
| the:F:SG | house | of | Peter |

'Peter's house'

Frisian *fan* 'from' > marker of attributive possession. Ex.

Frisian (Koptjevskaja-Tamm *forthc.*; quoted from Tiersma 1985: 54, 94)

- (a) *it komt fan Sjina.*
(it comes from China)
'It comes from China.'
- (b) *de hoed fan Jetze*
the hat of Jetze
'Jetze's hat'

Old English *of* 'from' > Middle English possessive marker ('of'; Traugott 1986b: 541). German *von* 'from' (ablative preposition) > marker of attributive possession ('of'). Ex.

⁵ A-POSSESSIVE (= marker of attributive possession; Heine 1997a) stands for what is commonly translated in English by 'of'.

German

- (a) *Er kommt von drüben.*
 he comes from over:there
 'He originates from the ex-GDR.'
- (b) *das Pferd von Peter*
 the horse from Peter
 'Peter's horse'

Upper Sorbian (Koptjevskaja-Tamm forthc.; quoted from Corbett 1987: 302)

kniha wot Jan-a
 book from/of Jan-GEN
 'Jan's book'

Macedonian (Koptjevskaja-Tamm forthc.; quoted from Koneski 1982: 525)

palto-to od Petre-ta
 coat- DEF:NEUT:SG from/of Peter-OBL
 'Peter's coat'

In the following example, it is a BELONG-construction of possession (a B-POSSESSIVE), rather than an A-POSSESSIVE (see Heine 1997a), that is involved: Hawaiian *no* 'from' > 'belong to'. Ex.

Hawaiian (Susanne Romaine, personal communication)

- (a) *No Maui 'O Kimo.*
 from Maui ? Kimo
 'Kimo is from Maui.'
- (b) *No Kimo ka hale.*
 of Kimo the house
 'The house is Kimo's/belongs to Kimo.'

See also Lehmann 1982: 111 and Harris and Campbell 1995: 339–41. Note that most of these examples relate to Indo-European languages; more research is required on the genetic and areal distribution of this process.

ABLATIVE > (7) SINCE (TEMPORAL)

Romanian *de* 'from' > 'since'; Polish *od* 'from' > 'since'; Croatian *od* 'from' > 'since'; Lithuanian *nuo* 'from' > 'since'; Greek *apó* 'from' > 'since'; Georgian *-dan* 'from' > 'since'; Maltese *minn* 'from' > 'since'; Persian *az* 'from' > 'since'; Punjabi *tō* 'from' > 'since'; Chinese *cóng* 'from' > 'since'; Kannada *-inda* 'from' > *-inda* 'since'; Tamil *-leruntu* 'from' > 'since' (Haspelmath 1997b: 66). For more details, see Haspelmath (1997b: 66–8), who has proposed this instance of grammaticalization, which appears to be part of a more general process whereby spatial concepts are used to also express temporal concepts; compare ALLATIVE; BEHIND; IN; LOCATIVE.

ALL > (1) PLURAL

This grammaticalization process appears to achieve marking plural referents of nouns or personal pronouns. Colloquial southern American English *y'all* (second person plural pronoun). English *all* > Tok Pisin PE *ol* 'they' (third person plural subject pronoun). In Waŋkumara, the free form *buka* 'all, together' is commonly used as a plural marker (McDonald and Wurm 1979: 27). Portuguese *todo(s)* 'all' > Papia Kristang CP *nos-túru* 'we' ('we all', first person plural inclusive pronoun; Stolz 1992b: 281). French *tous les* 'all the' > Tayo CF *tule, tle, te*, nominal plural proclitic or prefix. Ex.

Tayo CF (Kihm 1995: 234, 237)

| | | | | | | |
|------------|--------------|----------------|-------------|--------------|-------------|----------|
| <i>Tle</i> | <i>fler-</i> | <i>la,</i> | <i>le</i> | <i>fini</i> | <i>puse</i> | <i>e</i> |
| PL | flower- | DEF | TAM | CPL | grow | and |
| <i>pi</i> | <i>sa</i> | <i>atra-de</i> | <i>puse</i> | <i>akor.</i> | | |
| then | they | PROG | grow | still | | |

'The flowers have been growing, and they are still growing.'

Note that we have subsumed under this entry a number of different individual processes. More research is required on the exact nature and the genetic and areal distribution of this process.

ALL > (2) SUPERLATIVE

Latvian *viss* 'all' > superlative prefix *vis-*; Estonian *kõik* 'all' > superlative marker 'of all' (Stolz 1991b: 50–4). Amharic *hullu* 'all', used in superlative constructions. Ex.

Amharic (Ultan 1972: 134)

| | | |
|------------|--------------|----------------|
| <i>kə-</i> | <i>hullu</i> | <i>yamral.</i> |
| from- | all | he:is:handsome |

'He is the most handsome of all.'

Hamer *wul-na* 'all' + dative suffix > superlative marker. Ex.

Hamer (Lydall 1976: 433)

| | | | | | |
|-------------|-----------|-------------|-------------|-----------|-------------|
| <i>wul-</i> | <i>na</i> | <i>kisi</i> | <i>sana</i> | <i>də</i> | <i>gəb.</i> |
| all- | for | he | fast | exists | runs |

'He runs fastest.'

Teso *kere* 'all' > superlative marker. Ex.

Teso (Kitching 1915: 25, 44)

- (a) *aŋarit* *oni* *kere.*
 call:3:SG us all

'He's calling all of us.'

- (b) *etogo* *ŋol* *ŋes* *le- telekarit* *kere.*
 house that COP REL-surpass all

'That house is the biggest one.'

Note that it is not ALL on its own that is responsible for this grammaticalization; in addition some comparative predication (expressed, e.g., in the Teso example by means of ‘surpass’) is required. Heine (1997b: 124) notes: “Perhaps the predominant pattern for forming superlatives is that of replacing an individual standard of comparison . . . by the entire class of possible individuals, which means typically that the standard is modified by the quantifier ‘all’ and the like.” For more examples, see Ultan 1972 and Heine 1997b: 124f.

ALLATIVE > (1) COMPLEMENTIZER

This grammaticalization path is suggested by Hopper and Traugott (1993: 181–2), who note that “the reanalysis of a dative-allative particle as a complementizer is widespread.” The following are among the examples adduced by them: Latin *ad* ‘to’, French *à* (< Latin *ad* ‘to’), and Maori *ki*, which is both a dative and an allative marker, “and is a complementizer with the same kinds of verbs as English *want*.” Ex.

English (Hopper and Traugott 1993: 181)

- (a) *We handed the box to the Gypsy.*
 (b) *We want to ask you a few questions.*

It would seem that we are dealing with a chain of grammaticalization of the following kind: ALLATIVE > PURPOSE > INFINITIVE > COMPLEMENTIZER (cf. Haspelmath 1989); see ALLATIVE; PURPOSE. Note that ALLATIVE itself is the target of other concepts; see under ARRIVE; GO TO; SEE.

ALLATIVE > (2) DATIVE

Tamil *-iṭam* ‘to’ (directional bound postposition) > bound postposition marking the indirect object. Ex.

Tamil (T. Lehmann 1989: 41)

| | | | |
|---------------------------|----------------------|------------|-----------------|
| <i>kumaar</i> | <i>raajaa-v-iṭam</i> | <i>oru</i> | <i>pustakam</i> |
| Kumar | Raja- LOC | a | book |
| <i>koṭu-tt-</i> | <i>aaṅ.</i> | | |
| give- PAST-3:SG:M | | | |
| ‘Kumar gave Raja a book.’ | | | |

Lezgian *-z* ‘to’, direction marker (nominal suffix) (> ‘for’ benefactive/malefactive marker) > dative marker. Ex.

Lezgian (Haspelmath 1993: 88, 89)

- (a) *Zun* *medinstitutdi-* *z* *fi-* *da.*
 I:ABS medical:school-DAT go- FUT
 ‘I’ll go to medical school.’
- (b) *Ruša* *gadadi-* *z* *ciük* *ga-* *na.*
 girl:ERG boy- DAT flower give- AOR
 ‘The girl gave a flower to the boy.’

Examples of a development from allative to dative functions can also be found in European languages. Thus, Latin *ad* 'to' has given rise to markers whose functions include that of a dative in some Romance languages; compare also English *to*. Ex.

English

- (a) *I went to my teacher.*
 (b) *I spoke to my teacher.*

The preposition *YU* of Pre-Archaic Chinese (fourteenth–eleventh centuries B.C.) had both an allative and a dative meaning. Alain Peyraube (personal communication) considers it more likely that the dative meaning preceded the allative one in time; that is, we might be dealing with a counterexample to the present grammaticalization. Note that ALLATIVE itself is the target of other concepts; see ARRIVE; GO TO; SEE.

ALLATIVE > (3) INFINITIVE

ALLATIVE markers tend to give rise to PURPOSE markers, which may further develop into INFINITIVE markers, a process that has been well described by Haspelmath (1989). For examples of the latter evolution, see PURPOSE > INFINITIVE. Note that ALLATIVE itself is the target of other concepts; see ARRIVE; GO TO; SEE.

ALLATIVE > (4) PATIENT⁶

Spanish *a*, directional preposition > marker of human/definite objects. Imonda *-m*, direction marker > (a) optional object marker, (b) obligatory object marker in [+HUMAN] object-subject relations. Ex.

Imonda (Seiler 1985: 165)

| | | | | | | | | |
|--------------------------------------|----------|--------------|----------|--------------|------------|------------|------------|-----------|
| <i>aia-</i> | <i>l</i> | <i>edel-</i> | <i>m</i> | <i>ue-</i> | <i>ne-</i> | <i>uōl</i> | <i>fe-</i> | <i>f.</i> |
| father-NOM | | human-GL | | CLASS-eat-PL | | | do-PRES | |
| 'Her father habitually eats humans.' | | | | | | | | |

Lezgian *-z* 'to', direction marker, nominal suffix > experiencer object marker. Ex.

Lezgian (Haspelmath 1993: 89)

- (a) *Zun* *medinstitutdi-* *z* *fi-* *da.*
 I:ABS medical:school- DAT go- FUT
 'I'll go to medical school.'
- (b) *Kasbubadi-* *z* *tara-* *n* *xile-* *l*
 Kasbuba- DAT tree- GEN branch- SRESS
zurba *sa* *quš* *aku-na.*
 big one bird see-AOR
 'Kasbuba saw a big bird on a tree's branch.'

⁶ Latin shows evidence of a reversed process, in that the accusative suffix *-m*, inherited from Proto-Indo-European, serves as an allative in certain locutions (anonymous reader).

There may be two different pathways that are involved here, one leading from a dative (recipient) to a patient/accusative marker, and another leading to an experiencer marker (Martin Haspelmath, personal communication); see also **DATIVE > PATIENT**. Note that **ALLATIVE** itself is the target of other concepts; see **ARRIVE; GO TO; SEE**.

ALLATIVE > (5) PURPOSE

Imonda *-m*, directional marker (NP-suffix) > purpose case marker (nominal suffix). Ex.

Imonda (Seiler 1985: 161)

- (a) *në- m at uagl-n.*
 bush-GL CPL go- PAST
 'He has gone to the bush.'
- (b) *tëta- m ai- fõhõ- n.*
 game-GL PL-go DOWN-PAST
 'They have gone hunting for game.'

Albanian *për* 'to', directional preposition > preposition marking purpose. Ex.

Albanian (Buchholz, Fiedler, and Uhlisch 1993: 403)

punon për nesër
 'to work for tomorrow'

This process leads not only to the rise of **PURPOSE** case markers but also to **PURPOSE** proposition markers; for example, Imonda *-m* purpose marker > purposive clause marker. Ex.

Imonda (Seiler 1985: 162)

tõbtõ soh- m ka uagl-f.
 fish search-GL I go- PRES
 'I am going to search for fish.'

Lezgian *-z* 'to', direction marker (nominal suffix) > *-z/-iz*, purposive marker (verbal suffix). Ex.

Lezgian (Haspelmath 1993: 89, 156)

- (a) *Zun medinstitutdi- z fi- da.*
 I:ABS medical:school-DAT go- FUT
 'I'll go to medical school.'
- (b) *I irid stxa çpi- n juldaš- ri-*
 this seven brother selves-GEN friend- PL-
q^h galaz qũğwa- z fe- na.
 POESS with play- INF go- AOR
 'These seven brothers went to play with their friends.'

Basque *-ra*, the ordinary allative case marker, marks purpose when attached to a verb in the gerund. Ex.

Basque (anonymous reader)(a) *etxera noa.*

| | | | | |
|--------------|-----------|-----------|-----------|-----------|
| <i>etxe-</i> | <i>ra</i> | <i>n-</i> | <i>a-</i> | <i>oa</i> |
| house- | ALL | 1:SG:ABS- | PRES- | go |

‘I’m going home.’

(b) *liburu hau irakurtzera noa.*

| | | | | |
|---------------|------------|----------------|----------------|-----------|
| <i>liburu</i> | <i>hau</i> | <i>irakur-</i> | <i>tze- ra</i> | <i>n-</i> |
| book | this | read- | GER-ALL | 1:SG:ABS- |

| | |
|-----------|-----------|
| <i>a-</i> | <i>oa</i> |
| PRES- | go |

‘I’m going to read this book.’

This appears to be an instance of a widespread process whereby spatial and temporal markers are grammaticalized in specific contexts to markers of “logical” grammatical relations, such as adversative, causal, concern, concessive, and conditional relations; see, for example, **LOCATIVE**; **SINCE**; **TEMPORAL**; **UP**. Note that **ALLATIVE** markers themselves may be the target of other concepts; see **ARRIVE**; **GO TO**; **SEE**.

ALLATIVE > (6) TEMPORAL

German *zu* allative preposition > temporal preposition. Ex.

German

(a) *Komm zu mir!*
 come to me
 ‘Come to me!’

(b) *Er kommt immer zum Wochenende.*
 he comes always to:the weekend
 ‘He always comes on the weekend.’

Albanian *për* ‘to’, directional preposition > ‘in’, ‘within’, temporal preposition. Ex.

Albanian (Buchholz et al. 1993: 403)

| | | |
|------------|------------|-------------|
| <i>për</i> | <i>tri</i> | <i>javë</i> |
| (to | three | weeks) |

‘in/within three weeks’

Lezgian *-z* ‘to’, direction marker (nominal suffix) > temporal marker. Ex.

Lezgian (Haspelmath 1993: 88–9)

(a) *Zun medinstitutdi- z fi- da.*
 I:ABS medical:school-DAT GO-FUT
 ‘I’ll go to medical school.’

(b) *M. Hažiev 1958 = jisa- n 22 = martdi-*
 M. Hažiev 1958 = year- GEN 22 = March-

| | | | |
|----------|---------------|------------|------------|
| <i>z</i> | <i>kečmiš</i> | <i>xa-</i> | <i>na.</i> |
| DAT | dead | become-AOR | |

'M. Hažiev passed away on 22 March 1958.'

This grammaticalization appears to be an instance of a more general process whereby spatial concepts, including motion in space, are used as structural templates to express temporal concepts; see also ALLATIVE > UNTIL; ABLATIVE; BEHIND; IN; LOCATIVE. Note that ALLATIVE itself is the target of other concepts; see ARRIVE; GO TO; SEE.

ALLATIVE > (7) UNTIL (TEMPORAL)

Chinese *DAO* 'to' > 'until'. Ex.

Chinese (Alain Peyraube, personal communication)

| | | | | | | |
|------------|-------------|------------|------------|-------------|------------|-------------|
| <i>Yao</i> | <i>deng</i> | <i>dao</i> | <i>liu</i> | <i>dian</i> | <i>cai</i> | <i>zou.</i> |
| must | wait | until | six | hour | then | leave |

'(We) must wait until six before leaving.'

Old Norse *til* 'goal' > English *till*; Middle High German *bī ze* (= *bei zu*) 'with to' > *bis* 'until'; Russian *do* 'to' > 'until'; Croatian *do* 'to' > 'until'; Bulgarian *do* 'to' > 'until'; Arabic *ʔilaa* 'to' > 'until' (Haspelmath 1997b: 67). Lezgian *-ldi*, superdirective (SRDIR) marker 'onto', nominal suffix > 'until', temporal marker. Ex.

Lezgian (Haspelmath 1993: 101–2)

- (a) *Allahquli* *ruša-* *n* *diqet* *wiče-*
 Allahquli girl- GEN attention self-
ldi *č'ugwa-* *z* *alaq^h-* *zawa-* *j.*
 SRDIR draw- INF strive- IMPFV- PAST
 'Allahquli was trying to draw the girl's attention to himself.'
- (b) *Wun* *i* *č'awa-* *ldi* *hina* *awa-* *j?*
 you:ABS this time- SRDIR where be:in- PAST
 'Where were you until now?'

This grammaticalization appears to be an instance of a more general process whereby spatial concepts, including motion in space, are used as structural templates to express temporal concepts; see also ALLATIVE > TEMPORAL; ABLATIVE; BEHIND; FRONT; IN; INTERIOR; LOCATIVE. Note that ALLATIVE itself is the target of other concepts; see ARRIVE; GO TO; SEE.

ALONE > ONLY

English *alone*. Ex.

English

- (a) *Susie was alone in the house.*
 (b) *Among my friends, Susie alone smokes.* (anonymous reader)

German *allein* 'alone' > 'only'. Ex.

German

- (a) *Ich bin allein zu Hause.*
 I am alone at home.
 'I am alone at home.'
- (b) *Allein wegen dem Duft mag ich Blumen.*
 alone because:of the smell like I
 flowers
 'I like flowers only because of the smell.'

Bulgarian *samó* 'alone', adjective (NEUT:SG) > *sàmo* 'only', adverbial. Ex.

Bulgarian

- (a) *Deteto e samó v momenta.*
 child:the is alone:NEUT:SG in
 moment:the
 'The child is alone at the moment.'
- (b) *Ivan jade sámó kiselo mljako za zakuska.*
 Ivan eat:3:SG:PRES alone:NEUT:SG yogurt
 for breakfast
 'Ivan has only yogurt for breakfast.'

Basque *bakarrik* 'by oneself' is attested from the fifteenth century, but only from the seventeenth century is it attested as meaning 'only' (anonymous reader; Sarasola 1996: 95). Ex.

Basque (anonymous reader)

- (a) *bakarrik etorr-i d-a.*
bakar- rik etorr- i d- a
 alone- ADVL come- PFV PRES- AUX
 'He has come by himself.'
- (b) *urtean behin bakarrik*
urte- an behin bakar:rik
 year- LOC once only
 'only once a year'

Swahili *peke yake* 'alone' (third person singular) > 'only'. Ex.

- (a) *A- na- kaa peke yake.*
 CI- PRES- stay alone
 'He lives alone.'
- (b) *A- na- taka chai peke yake.*
 CI-PRES- want tea only
 'He wants tea only.'

More research is required on the exact nature and the genetic and areal distribution of this process. See also **ONE**.

ALSO > NP-AND

Cayuga *hni* 'also', 'too' > noun-phrase coordination conjunction. Ex.

Cayuga (Mithun 1988: 341–2)

- | | | | | | |
|-----|--------------------------------|---------------|-----------------|-------------|---------------------|
| (a) | <i>Akitakrá</i> | <i>hni</i> | <i>shē</i> | <i>nyó:</i> | <i>n'atō:tá:ke.</i> |
| | I:fell | also | as | far | I:came:back |
| | 'I fell on the way back, too.' | | | | |
| (b) | <i>Junior,</i> | <i>Helen,</i> | <i>Hercules</i> | <i>hni</i> | |
| | Junior | Helen | Hercules | also | |
| | 'Junior, Helen, and Hercules' | | | | |

Kxoe *tama-xa* 'also', adverbial particle > NP-conjoining particle 'and', added to both conjunct constituents. Ex.

Kxoe (Treis 2000b: 76; Köhler 1989: 182, 268)

- | | | | | | |
|-----|--------------------------------------|----------------------|----------------|-------------------|-----------|
| (a) | <i>Gòàvá-</i> | <i>ñ</i> | <i>tama-xa</i> | <i>/ʔán-</i> | <i>a-</i> |
| | Mbukushu- | C:PL | also | settle- | JUNC- |
| | <i>ko té-</i> | <i>hī.</i> | | | |
| | CONV | be- | PAST | | |
| | 'The Mbukushu also lived there.' | | | | |
| (b) | <i>/Gíríku-</i> | <i>n</i> | <i>tama-xa</i> | <i>Kwánggari-</i> | |
| | Giriku- | C:PL | also | Kwangali- | |
| | <i>n</i> | <i>tama-xa . . .</i> | | | |
| | C:PL | also | | | |
| | 'the Giriku and the Kwangali . . .' | | | | |

See Mithun 1988 and Treis 2000b for more details on this grammaticalization; see also **COMITATIVE**; **DUAL**; **TWO**.

This appears to be an instance of a more general process, whereby adverbial categories are pressed into service as coordinating elements.

VP-AND > SUBORDINATOR

That coordinating conjunctions 'and' may come to be used as subordinating conjunctions has been demonstrated by Harris and Campbell (1995: 290). The Mingrelian coordinating conjunction *da* 'and' has developed into a conditional clause marker, and Mingrelian *do* 'and' can be used as the temporal conjunction 'as soon as'. Similarly, the coordinating conjunction *ta* 'and' of !Xun (northern dialect) serves as a marker of cause clauses but may also introduce other kinds of adverbial clauses.

!Xun, northern dialect (Bernd Heine, field notes)

- | | | | | | | |
|-----|-----------------|-----------|--------------|--------------|-----------|--------------|
| (a) | <i>yà-ndu'à</i> | <i>ke</i> | <i>!xòlù</i> | <i>dóngí</i> | <i>ta</i> | <i>dùisá</i> |
| | C1-DEM | PAST | mount | donkey | and | be:slow |

- ta* *'ú.*
and go
'He rode the donkey slowly.'
- (b) *yà* */oa* *tčí* *ta* *yà* *fí a* *#èhi.*
C1 NEG come and C1 PROG be:sick
'He doesn't come because he is sick.'

While such context-induced uses appear to be not uncommon in a number of languages, it is not entirely clear whether, or to what extent, VP-AND markers are really conventionalized to subordinating conjunctions. In any case, this grammaticalization appears to be part of a more general process whereby markers of clause coordination give rise to subordination markers.

ANTICAUSATIVE > PASSIVE

!Xun /'é ('body', noun > reflexive marker >) anticausative marker > passive marker. Ex.

!Xun, northern dialect (Bernd Heine, field notes)

- (a) *ma* *ke* *g//éà* *mí* */'é* *ke* *àngòlà.*
1:SG PAST bear my self in Angola
'I was born in Angola.'
- (b) *g//ú* *má* *ke* *tchî* *ká'î* */'é* *ke* *mí.*
water TOP PAST drink its self by 1:SG
'The water has been drunk by me.'

This grammaticalization is well documented; it has been discussed in particular by Kemmer (1993: 151ff., 197); for details, see there and also Faltz [1977] 1985 and Heine 2000. Usually it has been described as involving "middle" forms as a source, but the notion "middle" is not without problems, essentially because it does not appear to refer to a clearly delineable grammatical function. Concerning the evolution from anticausative uses to passive ones in early Romance, see Michaelis 1998. Reflexive markers constitute one common source for anticausative markers; hence, there appears to be a fairly widespread, more general pathway REFLEXIVE > ANTICAUSATIVE > PASSIVE; see REFLEXIVE > PASSIVE and also BODY; HEAD.

AREA ('area', 'region') > LOCATIVE

Kpelle *pele* 'area', 'way' > 'around', postposition (Westermann 1924: 12). *Imonda la* 'area' > 'around', locative adverbial. Ex.

Imonda (Seiler 1985: 43)

- ed-la- m* *ed* *li- f.*
PX-area-LOC PX lie-PRES
'It is around there.'

This grammaticalization appears to be an instance of a more general process whereby nouns that imply some spatial reference in their meaning may give rise to locative markers; compare **HOME**; **HOUSE**; **PLACE**; **SIDE**. More research is required on the genetic and areal distribution of this process.

'Arm' see **HAND**

ARRIVE ('arrive at', 'reach') > (1) ABILITY

Koranko *ké* 'reach', 'arrive at' > 'can', 'be able', modal auxiliary. Ex.

Koranko (Raimund Kastenholz, personal communication)

(a) *kélaye* *ára* *ké* *fólo* *bà*
 messenger TAM reach already Q
 'Has the messenger already arrived?'

(b) *ń* *té* *ké* *táa-la* . . .
 1:SG NEG reach go- at
 'I am not able to walk. . .'

Mandarin Chinese *dào* 'arrive', verb of motion > *-dào* 'manage to', 'succeed', ability marker. Ex.

Mandarin Chinese (Li and Thompson 1981: 66)

| | | | |
|---------------------|------------|------------------------|------------|
| <i>kàn-</i> | <i>dào</i> | <i>zhǎo-</i> | <i>dào</i> |
| see- | arrive | search- | arrive |
| 'succeed in seeing' | | 'succeed in searching' | |

Conceivably, this pathway can be grouped together with (>) **ARRIVE** > **SUCCEED**. More research is required on this process.

ARRIVE ('arrive at', 'reach') > (2) ALLATIVE

Chinese *dào* 'reach', 'arrive', verb > *dào* 'to', preposition. Ex.

Chinese (Hagège 1975: 156; Alain Peyraube, personal communication)

(a) *tā* *dào* *le* *Zhongguó*.
 he arrive PERF China
 'He arrived in China.'

(b) *tā* *dào* *Zhongguó* *qù* *le*.
 he to China go CRS
 'He went to China.'

Ewe *ɔ* 'reach' > 'toward', preposition (Lord 1989: 252; Heine et al. 1991: 187ff.). Zande *da* 'reach', 'arrive' > 'as far as', 'until', preposition (Canon and Gore [1931] 1952: 23f.). French *arriver* > Haitian CF *rivé* 'to' (*mouvement ver un lieu*; Sylvain 1936: 131). Ex.

Haitian CF (Sylvain 1936: 131; Hall 1953: 55)

| | | | | | |
|--|--------------|------------|-----------------|-------------|---------------|
| <i>Li</i> | <i>broté</i> | <i>tut</i> | <i>pítit-li</i> | <i>rivé</i> | <i>Pako</i> . |
| (3:SG) | take | all | child-3:SG | to | Pako) |
| 'She moved all her children to Pakot.' | | | | | |

This appears to be an instance of a process whereby process verbs on account of some salient semantic property give rise to grammatical markers expressing case relations; compare COME FROM; FOLLOW; GIVE; GO TO; LEAVE; SEE; TAKE.

ARRIVE ('arrive at', 'reach') > (3) SUCCEED

Mandarin Chinese *dào* 'arrive', verb of motion > *-dào* 'manage to', 'succeed', ability marker. Ex.

Mandarin Chinese (Li and Thompson 1981: 66)

| | | | |
|---------------------|------------|------------------------|------------|
| <i>kàn-</i> | <i>dào</i> | <i>zhǎo-</i> | <i>dào</i> |
| see- | arrive | search- | arrive |
| 'succeed in seeing' | | 'succeed in searching' | |

Lahu *gà* 'reach', 'arrive at' (after a main verb) > 'manage to do' (Matisoff 1973: 233). More research is required on the genetic and areal distribution of this pathway. See also ARRIVE > ABILITY.

ARRIVE ('arrive at', 'reach') > (4) UNTIL (TEMPORAL)

Khmer *dɔl* 'arrive' > 'until', adverbial subordinator (Bisang 1998b: 769). Zande *da* 'reach', 'arrive' > preposition 'as far as', 'until'. Ex.

Zande (Canon and Gore [1931] 1952: 23f.)

- (a) *I nida aware.*
'They have arrived now.'
- (b) *Mo sungudi re da ho mi ka yega ni.*
'Wait for me until I come back.'

Bulu *kui* 'reach', 'arrive', verb > *akui* 'until', 'up to', preposition (Hagen 1914: 252). Kikuyu *kinya* 'arrive at', 'come' intransitive verb > *kinya* 'until', temporal conjunction. Ex.

Kikuyu (Benson 1964: 219–20)

| | | | | | |
|------------------------------|-------------|--------------|------------|------------|-----------|
| <i>ikara</i> | <i>haha</i> | <i>kinya</i> | <i>nj-</i> | <i>ok-</i> | <i>e</i> |
| (stay:IMP | here | arrive | 1:SG- | come- | SUBJUNCT) |
| 'Stay here till I get back.' | | | | | |

This grammaticalization appears to be part of a more extensive chain: ARRIVE > ALLATIVE > UNTIL; compare ALLATIVE; ARRIVE > ALLATIVE. See also ABLATIVE > SINCE; IN; LOCATIVE.

B

BACK (body part) > (1) AFTER

Thai *lǎŋ* 'back', noun > *lǎŋ-càag* (lit.: 'back from') adverbial subordinator 'after' (Bisang 1998b: 773)

Icelandic *bak* 'back', body part noun > *bak(i)* 'behind', 'after'. Ex.

Icelandic (Stolz 1992a: 16)

bak *jól-* *um*
 after Christmas-DAT:PL
 ‘after Christmas’

This process appears to be an instance of a more general process whereby body parts are grammaticalized to spatial concepts which again are used to also express temporal concepts; compare **BEHIND** > **AFTER**.

BACK (body part) > (2) BEHIND

Icelandic *bak* ‘back’, noun > (*að*) *bak(i)* ‘behind’, ‘after’ (Stolz 1992a: 16). Halia *muri* ‘back’ > BACK-REGION (Svorou 1994: 75, 85). Tzotzil *pat(il)* ‘back’, ‘bark’, ‘shell’ > ‘outside’, ‘behind’, locative marker (de León 1992: 573, 578). Colonial Quiché *ih* ‘back’, body part noun > *-ih* ‘behind’, locative marker. Ex.

Colonial Quiché (Dürr 1988: 58f.)

x- *e-* *be* *chi* *r-* *ih* *ri* *vmul.*
 CPL-3:PL:ABS-go LOC 3:SG:ERG-back DEF rabbit
 ‘They went after the rabbit.’

Moré *pōré* ‘back’, ‘the opposite’, noun > ‘behind’, adverb, postposition (Alexandre 1953b: 325). Kpelle *pol* ‘back’ > ‘behind’, ‘beyond’, postposition (Westermann 1924: 12). Kono *kó* ‘back’ > locative adverb, postposition ‘behind’, ‘in back of’. Ex.

Kono (A. Donald Lessau, personal communication)

èé pááándé kòngòè kó.
 3:SG:TAM far:IDEO hill:DET behind
 ‘It is behind the hill.’

Bambara *kó* ‘back’ > *kó fè* (lit.: ‘back at’) ‘behind’, ‘after’ (postposition). Ex.

Bambara (A. Donald Lessau, personal communication)

- (a) *ń* *fà* *kó*
 1:SG father back
 ‘my father’s back’
- (b) *à* *yé* *misi* *nyíni* *kùlu* *kófè.*
 3:SG TAM cow look:for hill behind
 ‘He looked for the cow behind the hill.’

Baka *pε*, inalienable noun, *pεpε* ‘back’, alienable noun ‘back’ > ‘behind’, adverb, adposition. Ex.

Baka (Brisson and Boursier 1979: 391; Brisson 1984: 142; glosses Christa Kilian-Hatz)

- (a) *pε-* *lè* *ɓà* *kè.*
 back-1:SG:POSS ASP ache
 ‘I have a backache.’

- (b) *ʔá* *te* *tɛ* *pé*
 3:SG:NAR fall with back:3:SG:POSS
 'He is falling backward.'

Aranda *ingkerne* 'back', noun > adposition 'behind'. Ex.

Aranda (*Wilkins 1989: 315*)

| | | | |
|---------------------------|------------------------|-----------------|------------|
| <i>Re</i> | <i>ingke-lhe-me</i> | <i>atyenge-</i> | <i>nge</i> |
| 3:SG:SUBJ | foot- go- NONPAST:PROG | 1:SG:DAT- | ABL |
| <i>ingkerne.</i> | | | |
| behind | | | |
| 'He's walking behind me.' | | | |

Welsh *cefn* 'back', 'stay', 'ridge', 'support' (Evans and Thomas 1963: 80) > *tu cefn i* 'behind', adposition (Evans and Thomas 1963: 80; Wiliam 1960: 37). Imonda *mās* 'back' > 'behind', postpositional noun (Seiler 1985: 40). Gimira *geš⁴* 'back' > postposition *geš⁴ni⁵* (BACK-case marker) 'after', 'behind' (Breeze 1990: 38).

This grammaticalization appears to be an instance of a more general process whereby certain body parts, on account of their relative position, are used as structural templates to express deictic location; compare BELLY; EYE; FACE; FOOT; HEAD. Concerning some of the implications of this process, see Aristar 1991, 1999.

BACK (body part) > (3) CAUSE

Moré *pōré* 'back', 'the opposite', noun (> postposition 'after') > *pōrē* 'because of', postposition of cause. Ex.

Moré (*Alexandre 1953b: 325*)

| | | | |
|--------------------------------------|-------------|-------------|-------------------|
| <i>eb</i> | <i>zaba</i> | <i>tāba</i> | <i>pagha:pōrē</i> |
| they | quarrel | woman | because:of |
| 'They quarreled because of a woman.' | | | |

Wolof *ginnaaw* 'back', body part noun > *ginnaaw* causal 'since', subordinating conjunction (Robert 1999). Shona *musana* 'lumbar region', 'back' > *pa mu sana pa(kuti)* (lit.: 'in back of (to say)') 'on account of', 'for the reason that', prepositional or conjunctive element (Marconnes 1931: 220). So far, only African examples have been found. It would seem, however, that we are dealing with a more general process whereby terms for body parts give rise to spatial markers that again may develop into markers for more abstract grammatical relations; compare HERE; LOCATIVE; PLACE.

BACK (body part) > (4) EARLIER

English *back*, body part noun > adverb; for example, *three years back*. Nanay *xamasi* 'back' > *xamasi* 'ago' (Haspelmeth 1997b: 92). Estonian *tagasi* 'back' > *tagasi* 'ago'. Ex.

Estonian (Haspelmath 1997b: 93)

| | | | | |
|-------------|-------------|---------------|-------------|--------------|
| <i>Minu</i> | <i>poeg</i> | <i>naases</i> | <i>kaks</i> | <i>tundi</i> |
| my | son | returned | two | hour:PARTV |

tagasi.
back
'My son returned two hours ago.'

Bulu *mvus* 'back', body part noun > 'back', 'ago', temporal adverb. Ex.

Bulu (Hagen 1914: 268)

| | | |
|-------------|---------------|-------------|
| <i>melu</i> | <i>metane</i> | <i>mvus</i> |
| (days | five | back) |

'five days ago'

This grammaticalization appears to be an instance of a more general process whereby certain body parts, on account of their relative position, are first used as structural templates to express deictic location and then develop further into temporal markers; compare BACK > AFTER, BACK > THEN.

BACK (body part) > (5) THEN

Kikuyu *thutha* 'back', 'behind', 'rear' (noun class 14) > 'afterward'. Ex.

Kikuyu (Barlow 1960: 189)

Nĩ- n- gũ- kw- ĩra thutha, tw- oima nja.
'I shall tell you afterward, when we go outside.'

Kikuyu *thutha* 'back', 'behind', 'rear' (noun class 14) > 'after' (temporal preposition). Ex.

Kikuyu (Barlow 1960: 189)

Thutha ũ- cio nd- a- na- coka gũ- tũ- ruma.
'After that he did not again abuse us.'

Egyptian *r-s3* 'toward the back of' > *r-s3* 'after', temporal subordinator (Gardiner 1957: 134). Ewe *meɣbé* 'back', *é-meɣbé* (3:POSS-back) 'his/its back' > *émeɣbé* 'then', 'thereafter', adverb, conjunction. Bambara *kó* 'back' > *ò kó* 'then', temporal adverb, mostly clause-initial. Ex.

Bambara (Kastenholz 1989: 100)

| | | | | | | |
|--------------|-------------|----------|-----------|-------------|-----------|------------|
| <i>ò kó,</i> | <i>à yé</i> | <i>à</i> | <i>ké</i> | <i>sègi</i> | <i>jù</i> | <i>fè.</i> |
| then | 3:SG TAM | 3:SG | do | basket | down | at |

'Then she put it down into the basket.'

Moré *pōré* 'back', 'the opposite' > 'then', 'thereafter' (Alexandre 1953b: 325).

This grammaticalization appears to be an instance of a more general process whereby certain body parts, on account of their relative position, are first used as structural templates to express deictic location and then develop further into temporal markers; compare BACK > AFTER.

BACK (body part) > (6) UP (SPATIAL)

Susu *fari* 'back', 'surface' > 'on', 'over', 'above' (postposition); *tebeli fari* 'on the table' (Friedländer 1974: 40). Mixtec *siki* 'animal back' > 'over', 'on top of (for horizontal surfaces off the ground)' (Brugman and Macaulay 1986; Lakoff 1987: 316). Ex.

Mixtec (Brugman and Macaulay 1986: 318)

| | | | |
|------------|--------------|-------------|-------------|
| <i>saà</i> | <i>ndéćé</i> | <i>siki</i> | <i>itú.</i> |
| bird | fly | animal:back | cornfield |

'The bird is flying over the cornfield.'

Shuswap *ikri* 'upper back', 'top', 'surface' > TOP-REGION (Svorou 1994). This transfer has been described as being due to a zoomorphic metaphor, whereby the body of four-legged animals serves as a vehicle for spatial orientation (see Heine et al. 1991: 126–7; Svorou 1988, 1994).

BAD ('bad', 'terrible') > INTENSIFIER

English *bad* > *badly*; *That hurts badly* / *I need it badly*. German *furchtbar* 'terrible' > intensifier. Ex.

German

- (a) *Das ist furchtbar.*
that is terrible
'That is terrible.'
- (b) *Der Pudding schmeckt furchtbar gut.*
the pudding tastes terribly good
'The pudding tastes terribly good.'

Baka *siti* 'evil'; 'malice'; 'bad', 'malignant' > intensifier 'very', adverb. Ex.

Baka (Brisson and Boursier 1979: 431f.)

- (a) *?e ko siti.*
3:SG very bad
'That's very bad.'
- (b) *bo kè bà mɛ̀̀ bè̀̀là siti na mɛ̀̀̀.*
person DEM ASP do work bad INF do
'This man works very well.'

Siroi *ɲayo* 'bad', adverb > 'very', 'extremely', intensifier. Ex.

Siroi (Wells 1979: 19)

| | | | |
|-------------|-------------|---------------|-------------|
| <i>kuen</i> | <i>ɲayo</i> | <i>masken</i> | <i>ɲayo</i> |
| long | bad | far | bad |

'extremely long' 'very far distant'

This grammaticalization illustrates a more general process whereby adverbs denoting negatively valued qualities may become intensifiers; compare English

awfully, fearfully, frightfully, terribly. In the course of this process they tend to lose their negative connotation and the emotional force they once had.

'Be' see COPULA

'Become' see CHANGE-OF-STATE

BEAT ('to beat', 'to hit', 'to strike') > PRO-VERB

Swahili *ku-piga* 'to beat', 'to hit', verb > pro-verb. Ex.

Swahili

| | | | |
|-------------------|--------------|-----------------|---------------|
| <i>ku-piga</i> | <i>picha</i> | <i>ku-piga</i> | <i>kelele</i> |
| to-beat | picture | to-beat | noise |
| 'to make a photo' | | 'to make noise' | |

Ewe *fo* 'beat', 'strike', 'hit', verb > pro-verb. Ex.

Ewe

| | | | |
|------------------|-----------|-----------------|-----------|
| <i>fo</i> | <i>nú</i> | <i>fo</i> | <i>ɔa</i> |
| beat | mouth | beat | hair |
| 'to speak, talk' | | 'to plait hair' | |

Conceivably, this grammaticalization, whereby a frequently used action verb turns into a semantically empty predicate marker, constitutes an African areal phenomenon. See also DO.

BEGIN ('to begin', 'to start') > (1) FIRST (NUMERAL)

The notion of an ordinal numeral 'first' may be expressed in a number of languages by means of constructions involving verbs meaning 'begin/start'. In some languages this usage has given rise to conventionalized terms for the numeral, for example, Swahili *ku-anza* (INF-'start') 'to start', verb > *-a kwanza* '(the) first', ordinal numeral. Ex.

Swahili

- (a) *a-* *na-* *taka* *ku-* *anza.*
 C1- PROG- want INF- start
 'He wants to start.'
- (b) *mw-* *ezi* *w-* *a* *kwanza*
 C3- month C3- POSS first
 'the first month', 'January'

More research is required on the areal and genetic distribution of this process; compare BEGIN > FIRST (TEMPORAL).

BEGIN ('begin', 'start') > (2) FIRST (TEMPORAL)

Swahili *ku-anza* 'to begin' > *kwanza* 'the first', 'first'. Ex.

Swahili

- (a) *a- li- anza ku-sali.*
 he-PAST-begin to-pray
 'He began to pray.'
- (b) *u- sali kwanza!*
 you-pray first
 'You pray first!'

Kikuyu *-amba* 'start', 'begin', 'be first', transitive and intransitive verb > *amba* 'first', adverb. Ex.

Kikuyu (Barlow 1960: 183)

amba ũ-ikar-e thĩ!
 'First sit down!'

While the examples of this grammaticalization are taken from one language family only (Niger-Congo), instances of incipient grammaticalization appear to exist in quite a number of languages; compare English *to begin with* in certain uses.

BEGIN ('begin', 'start') > (3) INCEPTIVE

English *start to* > inceptive marker; for example, *They started to laugh* (Hopper 1991: 23). Lingala *-banda* 'start' > ingressive auxiliary. Ex.

Lingala (Mufwene and Bokamba 1979: 244–6)

Kázi a- ko- banda ko- béta ndembó.
 (Kazi he-will- start to- play soccer)
 'Kazi will start playing soccer.'

While being conceptually plausible, more examples are required on the genetic and areal distribution of this process, especially examples suggesting that the process has proceeded beyond the stages of incipient grammaticalization. Nevertheless, this grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare COME TO; DO; FINISH; GO TO; KEEP; LEAVE; PUT.

BEHIND (SPATIAL) > AFTER

Lezgian *güğüna* 'behind' > *güğüniz* 'after' (Haspelmath 1997b: 61). Udmurt *beryn* 'behind' > *bere* 'after' (Haspelmath 1997b: 61). Hebrew *me ʔaħorey* 'behind' > *ʔaħarey* 'after' (Haspelmath 1997b: 61). Abkhaz *-štax* 'behind' > *-štax-gʷə* 'after' (Haspelmath 1997b: 61). Chinese *HOU* 'behind', localizer > 'after' (Alain Peyraube, personal communication). For further details, see Haspelmath 1997b: 61.

This grammaticalization appears to be part of a more extended chain: BACK > BEHIND > AFTER; compare BACK. At the same time, it is also an instance

of a more general process whereby spatial concepts are used also to express temporal concepts; compare ABLATIVE; ALLATIVE; IN; LOCATIVE.

BELLY ('belly', 'stomach') > (1) IN (SPATIAL)

Nama *!náb* 'belly', 'abdomen' > *!ná* 'in' (postposition). Ex.

Nama (*Krönlein 1889: 243*)

Nē sa #gaob !na hā χūna kha tarena?

'What things are in your heart?'

Hausa *ciki-* 'stomach'; 'pregnancy' + *-n* (determiner) > *cikin* 'in', 'inside', 'within' (Skinner 1973: 13); *cikin littā:fī* 'in the book' (Cowan and Schuh 1976: 58). Moré *pugha* 'belly', 'interior' > 'in', 'inside', postposition (Alexandre 1953b: 327–8).

Supyire *funɔ* 'belly' > *funɔ̀-ɔ̀*, postposition 'inside' (Carlson 1991: 205). Bambara *kɔnɔ* 'belly', 'stomach' > 'in', 'inside', locative adverb, postposition (Kastenholz 1989: 24, 49). Swahili **nda* 'stomach' + *-ni* locative suffix > *ndani* 'in', 'inside'. Acholi *ĩĩ(c)* 'belly' > (*ĩĩ*) 'in, into', preposition (Crazzolara [1938] 1955: 153f., 236). Baka *bu-* 'belly', inalienable noun, *bubu*, alienable noun > *bu-* 'interior of', derivational prefix. Ex.

Baka (*Brisson and Boursier 1979: 32*)

| | | | | | |
|---------------|----------|-----------|----------|-----------------|-----------|
| (a) <i>ʔé</i> | <i>à</i> | <i>kè</i> | <i>à</i> | <i>bú-</i> | <i>è.</i> |
| 3:SG | ASP | hurt | LOC | belly-3:SG:POSS | |

'His stomach is aching.'

| | | | | | |
|-----------------|-----------|-------------|--|--|--|
| (b) <i>ʔanà</i> | <i>bu</i> | <i>nda!</i> | | | |
| sweep | belly | house | | | |

'Sweep the (inside of the) house!'

| | | | | | |
|-----------|----------|--------------|----------|-----------|-------------|
| <i>ʔé</i> | <i>à</i> | <i>nɔ̀ɔ̀</i> | <i>à</i> | <i>bu</i> | <i>ngo.</i> |
| 3:SG | ASP | run | LOC | belly | water |

'He is running in the water.'

Mixtec *ini* 'stomach' > 'in' (Brugman and Macaulay 1986). Ex.

Mixtec (*Brugman and Macaulay 1986: 318*)

| | | | |
|------------|--------------|------------|---------------|
| <i>ni-</i> | <i>kāžáa</i> | <i>ini</i> | <i>ndúćá.</i> |
| CPL-drown | | stomach | water |

'Someone drowned in the water.'

Colonial Quiché *pam* 'stomach' > *-pa(m)* 'in', 'into', locative adposition. Ex.

Colonial Quiché (*Dürr 1988: 58ff.*)

| | | | | | |
|-------------|------------|-------------|--------------|-----------|-----------|
| <i>maui</i> | <i>nu-</i> | <i>hox</i> | <i>+bal,</i> | <i>ri</i> | <i>go</i> |
| NEG | 1:SG:ERG- | fornicate | +INSTRN | DEF | exist |
| <i>chi</i> | <i>nu-</i> | <i>pam.</i> | | | |
| LOC | 1:SG:ERG- | stomach | | | |

'It is not the result of fornication that is within me.'

Bowden (1992: 36) found eight Oceanic languages where terms for 'belly' or 'stomach' appear to have given rise to markers for IN. This grammaticalization

is an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; compare, for example, **BACK**; **BELLY**; **EYE**; **FACE**; **HEAD**.

BELLY ('belly', 'stomach') > (2) IN (TEMPORAL)

Acholi *ĩ(c)* 'belly' > (*i*)*ĩ* 'in', 'into', 'at the time of' (Crazzolara [1938] 1955: 153f., 236; Stolz 1992a: 24). Albanian *bark* 'belly' > 'inside', noun. Ex.

Albanian (Buchholz et al. 1993: 50f.)

| | | | |
|-----------------------------|-------------|-----------|--------------|
| <i>në</i> | <i>bark</i> | <i>të</i> | <i>javës</i> |
| in | belly | ART | week |
| 'in the middle of the week' | | | |

This grammaticalization appears to be a metaphorical extension of **BELLY** > **IN (SPATIAL)**, whereby locative concepts serve as structural templates for temporal ones; compare **BACK**; **EYE**; **IN**; **LOCATIVE**.

BENEFACTIVE > (1) DATIVE

This grammaticalization, whereby benefactive markers develop into markers for typically human referents assuming the function, for example, of indirect objects, has been proposed in a number of works on grammatical evolution (see, e.g., Lehmann 1982; Heine and Reh 1984: 270; Heine et al. 1991; cf. Lord 1993: 31–45).

Ewe *ná* 'give' > benefactive marker > dative marker. Ex.

Ewe (Hünemeyer 1985: 59)

- | | | | | |
|---|--------------|-----------|------------|-----------|
| (a) <i>é-</i> | <i>fi</i> | <i>ga</i> | <i>ná-</i> | <i>m.</i> |
| 3:SG- | steal | money | give- | 1:SG |
| 'He stole money for me.' | | | | |
| (b) <i>é-</i> | <i>gblɔ-</i> | <i>e</i> | <i>ná-</i> | <i>m.</i> |
| 3:SG | say- | 3:SG | give- | 1:SG |
| 'He said it to me.' (*'He said it for me.') | | | | |

The process may be described as involving desemanticization, whereby one meaning component ('to do something for the benefit of') is bleached out, with the effect that the relevant marker comes to accept complements other than benefactive ones, including malefactive participants. Typical contexts for this process appear to be verbs of speech ('say to', 'tell', etc.) or transaction (e.g., 'sell'). Compare **ALLATIVE**; **GIVE**.

BENEFACTIVE > (2) A-POSSESSIVE⁷

Arabic *li-*, benefactive preposition > *l(i)-*, genitive case marker. Ex.

⁷ A-POSSESSIVE (= marker of attributive possession; Heine 1997a) stands for what is commonly translated in English by 'of'.

Modern Arabic (Fischer and Jastrov [1977] 1991: 21, 46–8)

- (a) *li-l-bayti*
‘for the house’
- (b) *al-cima:ratu l-hadi:θatu li-l-ğa:micati*
‘the modern building of the university’

Baka *na*, benefactive preposition > possessive marker. Ex.

Baka (Christa Kilian-Hatz, personal communication)

- (a) *ma ndé bèlà na wósè.*
1:SG without work BEN woman
‘I have no work for women.’
- (b) *β̀̀ngɔ na díndó a kà?*
dress POSS baby in where
‘Where is the baby’s dress?’

In a number of English-based creoles, prepositions derived from English *for* have given rise to A-possessive markers; for example, Nigerian PE (“Anglo-Nigerian Pidgin”) *f̀̀* ‘for’ benefactive/locative preposition (< English *for*) > ‘of’, marker of attributive possession. Ex.

Nigerian PE (Mann 1993: 59)

- | | | | | | | |
|-------------|--------------|------------|-----------|----------------|--------------|------------|
| <i>Anti</i> | <i>Karo</i> | <i>b̀̀</i> | <i>di</i> | <i>juniɔ</i> | <i>sístà</i> | <i>f̀̀</i> |
| (aunt | Karo | is | the | younger:sister | | POSS |
| <i>mai</i> | <i>papa.</i> | | | | | |
| my | father) | | | | | |
- ‘Aunt Karo is my father’s younger sister.’

French *pour* ‘for’, benefactive preposition > Tayo CF *pu*, marker of attributive possession. Ex.

Tayo CF (Kihm 1995: 239)

- | | | | | | | |
|-----------|-------------|-----------|------------|-----------|-----------|-------------|
| <i>De</i> | <i>frer</i> | <i>pu</i> | <i>mwa</i> | <i>le</i> | <i>ni</i> | <i>mor.</i> |
| two | brother | for | me | TAM | CPL | dead |
- ‘My two brothers are dead.’

This process appears to be part of a more general evolution whereby adpositional concepts give rise to markers of attributive possession. For more examples, see Heine 1997a; compare ABLATIVE; DATIVE; LOCATIVE.

BENEFACTIVE > (3) PURPOSE

Bulgarian *za* ‘for’, benefactive marker > purpose marker. Ex.

Bulgarian

- (a) *Kupix mljako za decata.*
buy:1:SG:AOR milk for children:DEF
‘I bought milk for the children.’

- (b) *Ima* *li* *nešto* *za* *jadene?*
 have:3:SG:PRES Q something for eating
 'Is there something for eating/to eat?'

English *for*, benefactive preposition > purpose preposition. Ex.

English

- (a) *I bought the mirror for Mary.*
 (b) *I bought the mirror for the bedroom.*

Yaqui *bečibo* 'for' > purpose marker. Ex.

Yaqui (Lindenfeld 1973: 100)

- (a) *i-* *me* *baaʔam* *hu-* *me* *usi-*
 this- PL water this- PL child-
m *bečibo.*
 PL for
 'This water is for the children.'
- (b) *ini-* *me* *baaʔam* *hu-* *me* *usi-*
 this- PL water this- PL child-
m *hiʔi-* *ne* *bečibo.*
 PL drink- EXPECTED:ASP for
 'This water is for the children to drink.'

Easter Island *mo*, benefactive preposition > purpose marker. Ex.

Easter Island (Chapin 1978: 145ff.)

- (a) *ina* *au* *ekō* *avai* *atu* *i* *te*
 NEG I NEG give away ACC the
kai *mo* *korua.*
 food for you
 'I won't give you any food.'
- (b) *He* *patu* *mai* *i* *te* *puaka* *mo*
 PAST corral here ACC the cattle PURP
ma'u *kiruga* *ki* *te* *miro.*
 carry into to the boat
 '(They) corralled the cattle in order to carry (them) onto the boat.'

Ewe *ná*, benefactive (< *ná* 'give') > purpose preposition before inanimate complements.

Baka (Christa Kilian-Hatz, personal communication)

- (a) *ma* *ndé* *bèlà* *na* *wósè.*
 1:SG without work BEN woman
 'I have no work for women.'
- (b) *ma* *nè* *na* *látì* *ode.*
 1:SG here PURP sleep:VN NEG
 'I am not here (in order) to sleep.'

Wherever there is more evidence available it appears that this grammaticalization is triggered by context expansion, whereby the use of benefactive adpositions is extended from human complements to inanimate complements (see Heine et al. 1991); nevertheless, more diachronic data are required to substantiate the directionality proposed.

BODY > (1) INTENSIVE-REFL

Vai *búù wá* ‘body itself’ > emphatic reflexive marker (Welmers 1976: 52ff.; Heine 2000b). Ibibio *idém* ‘body’ > reflexive, emphatic reflexive marker (Essien 1982: 96ff.). Didinga *ele* ‘body’ > reflexive, emphatic reflexive marker (Heine 2000b). Moru *rú* ‘body’ > reflexive, emphatic reflexive, and reciprocal marker (Tucker and Bryan 1966: 45f.; Heine 2000b). Bagirmi *ro*, PL *roge* ‘body’ > emphatic reflexive, and reflexive, middle marker (Stevenson 1969: 45–6; Heine 2000b). Shilluk *re* ‘body’ > reflexive, emphatic reflexive, and reciprocal marker (Westermann 1912: 19f.; Kohnen 1933: 75–6; Heine 2000b). Lango *kom-* ‘body’ > reflexive, emphatic reflexive marker (Heine 2000b). Pári *rok* ‘body’ > reflexive, emphatic reflexive, and reciprocal marker (Simeoni 1978: 41f.; Heine 2000b). Lele *kùs* ‘body’ > reflexive, emphatic reflexive, and reciprocal marker (Frajzyngier 1997b). !Xun *ámá* ‘body’ > emphatic reflexive marker (Heine 2000b).

See Kemmer 1993; Heine 2000b; König and Siemund 2000; and Schladt 2000 for more details. See also Moravcsik (1972: 272) for further examples. Compare HEAD; OWNER.

BODY > (2) MIDDLE⁸

Krongo *òonó* ‘body’ > middle marker. Ex.

Krongo (Reh 1985: 172–3)

- | | | | | |
|-----|-----------|------------------------------------|-------------|--------------|
| (a) | <i>n-</i> | <i>áakúbí</i> | <i>à?àŋ</i> | <i>òonó.</i> |
| | 1/2- | IMPFV:dry | I | body |
| | | ‘I dry my body.’ / ‘I dry myself.’ | | |
| (b) | <i>n-</i> | <i>úwó</i> | <i>à?àŋ</i> | <i>òonó.</i> |
| | 1/2- | PFV:enter | I | body |
| | | ‘I’ve gone in.’ | | |

Duala *ńólò* ‘body’ > ‘oneself’, reflexive, middle pronoun. Ex.

Duala (Ittmann 1939: 177)

bwelé bó dóm ńólò.
‘the tree split’ (lit.: ‘the tree split itself’)

Bagirmi *ro*, PL *roge* ‘body’ > emphasizing, reflexive, and middle marker. Ex.

Bagirmi (Stevenson 1969: 45)

ma n̄ɟ g^wo ro(m)-a.
‘I wash myself.’

⁸ The notion “middle” is semantically complex, and it remains unclear whether we are really dealing with a distinct grammatical function.

Lamang *ghvà* ‘body’ > *-và*, reflexive, middle marker (Wolff 1983: 12off.; Heine 2000b). Since quite frequently middle markers go back to reflexive markers, we may be dealing with a more general development: BODY > REFLEXIVE > MIDDLE; see Haspelmath 1990; Kemmer 1993: 151ff. 197; Heine 2000b; and Schladt 2000 for more details.

BODY > (3) RECIPROCAL

Yoruba *ara* ‘body’ > reflexive, reciprocal marker (Awoyale 1986: 4; Heine 2000b). Moru *rù* ‘body’ > reflexive, emphatic reflexive, and reciprocal marker (Tucker and Bryan 1966: 45f.; Heine 2000b). Shilluk *re* ‘body’ > reflexive, emphatic reflexive, and reciprocal marker (Westermann 1912: 19f.; Kohnen 1933: 75f.; Heine 2000b). Bura *dzá* ‘body’ > *-dzí*, reflexive, reciprocal, antipassive (Hoffmann 1963: 157; Haspelmath 1990: 44). Luo *rĩŋg-ruok* ‘body’ > *-ruok* (*-rwok*), verbal reflexive and/or reciprocal suffix (Tucker 1994a: 83, 159). Pãri *rok* ‘body’ > reflexive, emphatic reflexive, and reciprocal marker (Simeoni 1978: 41f.; Heine 2000b). Gidar *zã* ‘body’ > reflexive, reciprocal marker (Frajzyngier 1997b; Heine 2000b). Xdi *vɣá* ‘body’ > reflexive, reciprocal marker (Frajzyngier 1997b; Heine 2000b). Margi *údzú* ‘body’ > reflexive, reciprocal marker (Hoffmann 1963: 157; Heine 2000b).

This grammaticalization appears to be an instance of a more general process whereby certain body parts serve to express more abstract discourse functions. One of the sources for reciprocal markers consists of reflexive markers, and since nouns meaning ‘body’ appear to form the most common source for reflexive markers, the present pathway is likely to be part of a more general process: BODY > REFLEXIVE > RECIPROCAL. For more details, see Heine 2000b and Schladt 2000; see also Kemmer 1993: 151ff. Compare REFLEXIVE > MIDDLE.

BODY > (4) REFLEXIVE

Ibibio *ídém* ‘body’ > reflexive, emphatic reflexive marker (Essien 1982: 96ff.). Ex.

Ibibio (Essien 1982: 107)

ímé *ámà* *átígha* *idem* (*amò*).

Ime ? shot body his

‘Ime shot his body (as opposed to his head).’ / ‘Ime shot himself.’

Yoruba *ara* ‘body’ > reflexive, reciprocal marker (Awoyale 1986: 4; Heine 2000b). Ex.

Yoruba (Awoyale 1986: 4)

Nwosu *rí* *ara* *rè*.

Nwosu saw body his

‘Nwosu saw himself.’

Óróń *ile* ‘body’ > reflexive marker (Essien 1982: 98). Ebira *en*^w_H ‘body’ > reflexive marker (Awoyale 1986: 4). Bassa *ními* ‘body’ > reflexive marker (Awoyale 1986: 4; Heine 2000b). Úsàk Èdèt *únem* ‘body’ > reflexive marker (Essien 1982: 98; Heine 2000b). Baka *ngòbò-* ‘body (of)’, inalienable noun > reflexive marker. Ex.

Baka (Christa Kilian-Hatz, personal communication)

- (a) *ngòbò-lè* *ɓà* *kè.*
 body- my ASP pain
 ‘I am sick.’
- (b) *ʔá* *à* *wɔ* *ngòbò-è.*
 3:SG ASP hide body- 3:SG:POSS
 ‘He is hiding.’

Duala *ńólò* ‘body’ > ‘oneself’, reflexive, middle pronoun; *bwá ńólò* ‘to kill oneself’, ‘to commit suicide’ (Ittmann 1939: 177). Moré *mēga* ‘body’, relational noun > ‘self’, reflexive pronoun. Ex.

Moré (Alexandre 1953b: 249–50)

- | | | | |
|----------|-----------|----------|--------------|
| <i>a</i> | <i>kū</i> | <i>a</i> | <i>mēga.</i> |
| he | kill | his | body |
- ‘He has killed himself.’

So *baak* ‘body’ > reflexive marker (Carlin 1993: 48). Didinga *ele* ‘body’ > reflexive, emphatic reflexive marker (Heine 2000b). Shilluk *re* ‘body’ > reflexive, emphatic reflexive, and reciprocal marker (Westermann 1912: 19–20; Kohnen 1933: 75–6; Heine 2000b). Anywa *dèet-* ‘body’ > reflexive marker. Ex.

Anywa (Reh 1996: 166–7)

- | | | | | |
|--------------------------------------|-----------|----------------------|--------------|------------|
| <i>dèeD-</i> | <i>wá</i> | <i>ā-</i> | <i>jʌʌl-</i> | <i>wá.</i> |
| body:PL:modified-noun-form-1:PL:EXCL | | PAST-blame-1:PL:EXCL | | |
- ‘We blamed ourselves.’

Päri *rok* ‘body’ > reflexive, emphatic reflexive, and reciprocal marker (Simeoni 1978: 41–2; Heine 2000b). Lango *kom-* ‘body’ > reflexive, emphatic reflexive marker (Heine 1997c). Luo *rjng-ruok* ‘body’ > *-ruok* (*-rwok*), verbal reflexive and/or reciprocal suffix (Tucker 1994a: 83, 159). Bagirmi *ro*, PL *roge* ‘body’ > emphasizing, reflexive, and middle marker (Stevenson 1969: 45). Moru *rú* ‘body’ > reflexive, emphatic reflexive, and reciprocal marker (Tucker and Bryan 1966: 45–6; Heine 2000b). Margi *údzú* ‘body’ > reflexive, reciprocal marker (Hoffmann 1963: 157; Heine 2000b). Lele *kùs* ‘body’ > reflexive, emphatic reflexive, and reciprocal marker (Frajzyngier 1997b; Heine 2000b). Gidar *zə-* ‘body’ > reflexive, reciprocal marker (Frajzyngier 1997b; Heine 2000b). Gisiga *vo* ‘body’ > reflexive marker (Lukas 1970: 71; Heine 2000b). Mina *ksəm* ‘body’ > reflexive marker (Frajzyngier 1997b; Heine 2000b). Pero *cíg* ‘body’ > reflexive

marker (Frajzyngier 1989: 183; Heine 2000b). Xdi *vyá-* > reflexive, reciprocal marker (Frajzyngier 1997b; Heine 2000b). Yagaría *ouva* ‘body’ > ‘self’, reflexive pronoun. Ex.

Yagaría (Renck 1975: 148)

| | |
|-------------------|----------------------|
| <i>d- ouva-di</i> | <i>begi-d- u- e.</i> |
| my-body-my | beat-PAST-1:SG-IND |
| ‘I hit myself.’ | |

Cahuilla *tax* ‘person’, ‘body’ > *tax-*, reflexive marker, verbal prefix (Haspelmath 1990: 44).

This grammaticalization (‘body’ + possessive attribute > reflexive marker) has taken place quite frequently in Romance-based and other creole languages; for example, French *le corps* ‘the body’ > Seychelles CF (possessive attribute +) *lekor*, reflexive marker. Ex.

Seychelles CF (Papen 1978: 398)

| | | | | | |
|--------------------------|-----------|-------------|-----------|--------------|-------------|
| <i>I</i> | <i>ti</i> | <i>apel</i> | <i>sô</i> | <i>lekor</i> | <i>Tom.</i> |
| (he | TNS | call | his | body | Tom) |
| ‘He called himself Tom.’ | | | | | |

In creole language studies, the evolution BODY > REFLEXIVE is a much-discussed issue (see, e.g., Corne 1973, 1988a, 1988b, 1989; Carden and Stewart 1988, 1989). In African languages, nouns for ‘body’ appear to be the most frequent source for reflexive markers. In a sample of roughly 150 languages, Schladt (2000: 112) found that nouns meaning ‘body’ constitute by far the most common source for reflexive markers. For more details, see Schladt 2000 and Heine 2000b; see also Kemmer 1993: 151ff. This grammaticalization appears to be an instance of a more general process whereby certain concrete nouns develop into referential pronouns; compare HEAD; MAN; PERSON.

BOTTOM > DOWN (SPATIAL)

Kpelle *mū* ‘bottom side’, relational noun > ‘under’, postposition (Westermann 1924: 12). Susu *bui*, *bunyi* ‘lower part’, ‘bottom side’, ‘underside’ > *bun*, *bunma* ‘below’, ‘under’, postposition. Ex.

Susu (Friedländer 1974: 40)

a na tebeli bun(ma).
‘He is under the table.’

Kwami *tillí* ‘bottom’, noun > ‘below’, locative adverb (Leger 1991: 29). Lezgian *k’an* ‘bottom’, spatial noun > *k’anik* ‘under’, ‘below’, postposition (Haspelmath 1993: 219–20). Hungarian **al* ‘bottom (region)’ > *al* ‘under-’, ‘lower-’, derivational prefix. Ex.

Hungarian (Halász 1973: 29, 440)

al-kar
‘forearm’

Aranda *kwene* 'bottom', relational noun > 'below', 'beneath', 'under', adposition.
Ex.

Aranda (Wilkins 1989: 316)

- (a) Artwe *ampwe-le* *inte-lhile-* *ke*
man old- ERG design(lie-CAUS)-PAST:CPL
pwerte *kwene-* *ke.*
rock bottom-DAT

'The old man made a design on the bottom of the rock.' (lit.: 'cause something to lie on')

- (b) Artwe *ampw-le* *inte- lhile-* *ke*
man old- ERG design(lie-CAUS)-PAST:CPL
pwerte-nge *kwene* (*ahelhe- ke.*)
rock- ABL beneath (ground-PAST:CPL)

'The old man made a design beneath the rock (in the dirt).'

This grammaticalization is suggestive of a more general process whereby relational nouns (including nouns for body parts) give rise to relational (typically spatial or temporal) grammatical markers; compare **BOTTOM**; **INTERIOR**; **SIDE**; **TOP**.

BOUNDARY ('border', 'boundary') > UNTIL

Swahili *m-paka* 'border', 'boundary', noun > *mpaka* 'until', temporal preposition, conjunction. Ex.

Swahili

- (a) *m-* *paka* *w-* *a* *Kenya*
c3- boundary c3- POSS Kenya
'the border of Kenya'
- (b) *mpaka* *kesho* *mpaka* *a-* *taka-*
until tomorrow until C1- FUT-
'until tomorrow' *po-* *rudi*
REL- return
'until she will come back'

Moré *tèka* 'boundary', 'end', noun > *tèka* 'until', 'since', temporal postposition (Alexandre 1953b: 390).

Only examples from Africa have been found so far. Nevertheless, this appears to be another instance of a more general process whereby relational nouns give rise to relational (typically spatial or temporal) grammatical markers; compare **BOTTOM**; **HOME**; **SIDE**; **TOP**.

BOWELS ('bowels', 'guts', 'intestines') > IN (SPATIAL)

Namakura *na-p'alau* 'bowel' > locative IN (Bowden 1992: 65). Hungarian *bél* 'intestines', 'guts'; 'interior', body part noun > *bel-* 'inside' (Szent-Iványi 1964: 44; Halász 1988: 178). Compare English *the bowels of the earth*. Bowden (1992:

36) found five Oceanic languages where terms for 'bowels' appear to have given rise to IN markers.

More data is required on the genetic and areal distribution of this process. Nevertheless, there is hardly any doubt that we are dealing with another instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; compare, for example, **BACK; EYE; FACE; HEAD; SHOULDER.**

BRANCH ('branch', 'twig') > CLASSIFIER

Ulithian *se-raa* 'branch', noun > numerative classifier (Sohn and Bender 1973 [1984]: 202, 243). Kilivila *sisila* 'branch' > *sisi*, classificatory particle for bough, cut off part of a tree, division of a magical formula (Senft 1996: 29, 175). Chinese *tiáo* 'branch' > classifier for one-dimensional objects (Bisang 1999: 133). Concerning the rise and development of classifiers in Chinese, see Peyraube 1998.

This grammaticalization appears to be part of a more general process whereby certain nouns, on account of some specific semantic characteristic, are recruited as structural templates for a folk taxonomic classification of nominal concepts; see also **CHILD; MAN; PIECE; SONG; TREE; WOMAN.** More research is required on the genetic and areal distribution of this process.

BREAST > FRONT

Welsh *bron* 'breast' > *ger bron* (lit.: 'near breast') 'in front of', 'near'; *ger fy mron* 'in front of me' (Wiliam 1960: 36). Proto-Bantu **mu-* Class 18 + *-bede* 'breast', 'tit' > Swahili *mbele* 'in front (of)', 'before'.

This is a common instance of grammaticalization (see Heine et al. 1991: 126; Bowden 1992: 69). Especially among the Bantu languages of the southern half of Africa, it is perhaps the most frequently employed source for markers of FRONT. Instead of words for 'breast' it may also be words for 'chest' that develop into FRONT markers (cf. Heine et al. 1991: 126). This is another instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; compare, for example, **BACK; EYE; FACE; HEAD; SHOULDER.**

BUTTOCKS > (1) BEHIND

Dogon *bɔɔ* 'buttock', noun > 'behind', adverb (Calame-Griaule 1968: 44). Chamus (Maa dialect) *siadi* 'buttocks', 'anus', noun > 'behind', adverb (Bernd Heine, field notes). Tzotzil *chak(il)* 'buttock' > 'behind (animal)', locative marker (de León 1992: 573, 578).

We are dealing here with an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; compare, for example, **BACK; BREAST; EYE; FACE; HEAD; SHOULDER.**

BUTTOCKS > (2) DOWN

Shuswap *ep* 'buttocks' > *-ep* BOTTOM-REGION (Svorou 1994: 254). Halia *i* 'in', 'at' + *kopi* 'buttocks', 'bottom' + *-na* (ADV SUF) > BOTTOM-REGION (Svorou 1994: 254). Bambara *jù* (+ *kɔɔ* 'basis', 'ground') 'buttocks' (Ebermann 1986: 106) > *jùkɔɔ* 'under', 'below', locative adverb, postposition. Ex.

Bambara (Kastenholz 1989: 100)

wùlu *dònna* *tábali* *jùkɔɔ*.
 (dog entered table below)
 'The dog went under the table.'

This is a common pattern of grammaticalization especially in African languages (see Heine et al. 1991, Chapter 5). We are dealing here with an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; compare, for example, **BACK**; **BREAST**; **EYE**; **FACE**; **HEAD**; **SHOULDER**.

C**CENTER ('center', 'middle') > (1) BETWEEN**

Chinese *ZHONGJIAN* 'middle', 'center' > 'between' (Alain Peyraube, personal communication). Vai *tɛ* 'middle', 'midst', 'center', noun > *-tɛ* 'between', suffix. Ex.

Vai (Koelle [1854] 1968: 218)

- (a) *ná tɛ*
 'the middle of my body'
 (b) *kéré ma bán'gɛ mɛtɛ*.
 'The war is not yet finished in our midst.' (i.e., between us)

Bulu *zañ* 'center', 'middle', noun > 'in the middle', 'between', adverb and preposition (Hagen 1914: 313). Kupto *tállé* 'center', 'middle' > 'between', locative marker (Leger 1991: 22). Ndebele *i-phakathi* 'center', 'middle', noun > *phakathi* 'inside', 'in', 'in the middle', adverb (Pelling 1971: 54). Albanian *midís* 'center', relational noun > 'between', locative preposition. Ex.

Albanian (Buchholz et al. 1993: 323)

midís Tiranës e Elbasanit
 'between Tirana and Elbasan'

Aranda *mpwepe* 'middle', 'center', noun > *mpwepe* 'in between', 'amongst', adposition (Wilkins 1989: 315). Ex.

Aranda (Wilkins 1989: 315)

Alyweke unte kwerne-me yenpe-nge tyelke-nge mpwepe-ke.
 'You insert the knife between the skin and the flesh.'

This grammaticalization is suggestive of a more general process whereby relational nouns (including nouns for body parts) give rise to relational (typically spatial or temporal) grammatical markers; compare **BOTTOM**; **INTERIOR**; **SIDE**; **TOP**.

CENTER ('center', 'middle') > (2) IN (SPATIAL)

Chinese *ZHONG* 'middle' > 'in' (Alain Peyraube, personal communication).
Lingala *ntéi* 'middle', 'center' > 'in', preposition (van Everbroeck 1958: 152).
Dullay *kítte* 'middle', locative genitive > *kíttacé*, *kíttaté* 'between', 'within', 'in', postposition. Ex.

Dullay (Amborn, Minker, and Sasse 1980: 102)

| | | | |
|-------------------|----------------|--------------|-----------------|
| <i>h̄ álleecé</i> | <i>kíttacé</i> | <i>wórše</i> | <i>na-'áka.</i> |
| calabash | within | beer | it- is |

'There is beer in the calabash.'

We are dealing with another instance of a more general process whereby relational nouns (including nouns for body parts) give rise to relational (typically spatial or temporal) grammatical markers; compare **BOTTOM**; **INTERIOR**; **SIDE**; **TOP**.

CHANGE-OF-STATE ('become') > (1) COPULA

Ngalakan *-men* 'become', inchoative verbalizing suffix > 'be', ("semi-copula") in the imperfective past. Ex.

Ngalakan (Hengeveld 1992: 253)

- | | | |
|----------------------|-------------------|------------|
| (a) ϕ - | <i>ŋolko-men-</i> | ϕ . |
| 3:SG-big- | become- | PRES |
| 'He is getting big.' | | |
| (b) ϕ - | <i>ŋolko-men-</i> | <i>iñ.</i> |
| 3:SG-big- | COP- | PAST:IMPFV |
| 'He was big.' | | |

Evidence for this grammaticalization is provided by Hengeveld (1992: 253–4), who also mentions Turkish *olmak* 'be', 'become', 'happen', 'mature' as an example. Note, however, that we seem to be dealing with an incipient, context-dependent evolution that is confined to specific verbal tenses; see also Anderson 1975. There are some examples, such as Proto-Indo-European **bhū* 'become', that have given rise to copula-like markers; for example, German *bin* '(I) am', English *been* (Lehmann 1982: 137).

CHANGE-OF-STATE ('become') > (2) FUTURE

German *werden* 'to become', verb > future tense auxiliary. Ex.

German

- | | | |
|---------------|-------------|--------------|
| (a) <i>Er</i> | <i>wird</i> | <i>Arzt.</i> |
| he | becomes | doctor |
- 'He becomes a doctor.'

- (b) *Er* *wird* *kommen*.
 he becomes come:INF
 'He'll come.'

For a discussion of this pathway, see Dahl 2000a.

'Chest' see **BREAST**

CHILD > (1) CLASSIFIER

Vietnamese *con* 'child' > classifier for living beings conceptualized as moving objects, frequently for females of inferior status (Löbel 1996: 138, 172). Kilivila *gwadi* 'child' > *gudi*, classificatory particle for child, immature human (Senft 1996: 20, 352). This grammaticalization appears to be part of a more general process whereby certain nouns, on account of some specific semantic characteristic, are recruited as structural templates for a folk taxonomic classification of nominal concepts; see also **BRANCH**; **MAN**; **PIECE**; **SONG**; **TREE**; **WOMAN**. More research is required on the genetic and areal distribution of this process.

CHILD > (2) DIMINUTIVE

Awtuw *yɛN* 'child', noun > *-yɛN*, diminutive suffix, denoting the young of an animal or a small token denoted by the bare noun. Ex.

Awtuw (Feldman 1986: 43)

| | |
|-------------------|------------------|
| <i>piyren-yɛN</i> | <i>ɕymen-yɛN</i> |
| dog- child | knife- child |
| 'puppy' | 'small knife' |

Chinese *ER* 'child', 'son', noun > diminutive derivative suffix (Alain Peyraube, personal communication). Ewe *dɛvi, vi* 'child', noun > *-vi*, diminutive derivative suffix. Ex.

Ewe

- (a) *ɲútsu-vi*
 man- child
 'boy'
- (b) *kpé- vi*
 stone- DIM
 'small stone' / 'pebble'

Dogon *i*: 'child', 'nephew', 'fruit', 'seed', noun > *-i*, diminutive suffix (Calame-Griaule 1968: 123). Susu *di* 'child', 'seed' > *-di*, diminutive marker, nominal suffix; *kira-di* (lit.: 'street-child') 'path'; *taa-di* (lit.: 'town-child') 'village' (Friedländer 1974: 79). Baka *lè* 'child', 'descendant', 'fruit (of)', 'race' > *lè-*, diminutive prefix. Ex.

Baka (Brisson and Boursier 1979: 198)

- (a) *mò* *tɛ* *lè* *pe?*
 2:SG with child how:many
 'How many children do you have?'

- (b) *lè- nda*
 DIM-house
 'small house'

Londo *nw-ána* 'child', noun > *nw-ána-*, diminutive marker. Ex.

Londo (Güldemann 1999b; quoted from Kuperus 1985: 228)

- (a) *nw- áná- mù- ínà*
 C1- child- C1- male
 'boy'
- (b) *nw- áná- mò- kòrí*
 C1- child- C3- hill
 'small hill'

Lingala *mwána* 'child' > *mwâ* (+ noun), diminutive marker (van Everbroeck 1958: 35; 150). Ex.

Lingala (van Everbroeck 1958: 35)

- (a) *mwána akómi kotámbola*.
 'The child starts walking.'
- (b) *mwâ eló kɔ mwâ ndámbo eké*
 'a small matter' 'a small part'

!Xun (northern dialect) *ma*, PL *mfi èè* 'child', 'small one' > *-ma*, PL *-mfi èè*, nominal diminutive suffix. Ex.

!Xun (Bernd Heine, field notes)

- | | | | |
|------------------|---------------|------------------|---------------|
| <i>khì ndä -</i> | <i>mà, PL</i> | <i>khì ndä -</i> | <i>mfi èè</i> |
| cup- | DIM | cup- | DIM:PL |
| 'small cup' | | | |
| <i>g!áún-</i> | <i>mà, PL</i> | <i>g!áún-</i> | <i>mfi èè</i> |
| tree- | DIM | tree- | DIM:PL |
| 'small tree' | | | |

||Ani /*oan* 'child', noun > *-oan* 'young' when used with animate nouns, 'small' when used with inanimate nouns, derivative suffix. Ex.

//Ani (Heine 1999a: 55)

- ngú- /oan*
 house- child
 'small house'

In many southern Bantu languages, such as Venda, Tonga-Inhambane, or Herero, there is a diminutive suffix typically of the form *-ana*, which is derived from the Proto-Bantu nominal root **-yana* 'child' (see Güldemann 1999b for details); for example, Venda *-ana* diminutive suffix. Ex.

Venda (Poulos 1990: 87)

| | | | |
|----------------------|-------------|-----------------------|----------------|
| <i>tshi-</i> | <i>kali</i> | <i>tshi-</i> | <i>kal:ana</i> |
| C7:DIM- | clay:pot | C7:DIM- | clay:pot:DIM |
| 'small clay pot | | 'very small clay pot' | |
| (somewhat broadish)' | | | |

For a more detailed discussion of the present pathway, see Heine and Hünemeyer 1988, and especially Jurafsky 1996. This appears to be an instance of a process whereby a noun, on account of some salient semantic property (in this case, relative size), gives rise to a grammatical marker highlighting that property; compare, for example, **BRANCH**; **CIRCLE**; **PLACE**; **TREE**.

CHILD > (3) PARTITIVE

Lingala *mwána* 'child' > *mwâ* (+ noun), partitive marker; *mwâ máí* 'a bit of water'; *mwâ mikɔlɔ* 'a few days' (van Everbroeck 1958: 35). Ewe *súkli* 'sugar', *súkli-ví* (lit.: 'sugar-child') 'piece of sugar', 'a sugar cube'. Regarding various alternative grammaticalizations that the concept CHILD has undergone in Ewe, see Heine et al. 1991: 79–86.

More examples from other language families are required to substantiate this grammaticalization, especially since both languages cited belong to the Niger-Congo phylum.

CHILDREN > PLURAL

Ik *wik* 'children', noun > *-ik*, nominal plural suffix (Heine 1983). Boni *ijáál* '(small) children', noun > *-(i)yaalɔ*, plural suffix of animate nouns (most of them kinship terms; Heine 1982a: 49–50, 98).

While these two examples stem from different language families, they both concern East African languages. More examples are needed to establish whether we are dealing with a cross-linguistically relevant process. Conceivably, this process is related to (>) **PEOPLE > PLURAL**, where the plural form of a human noun has been grammaticalized to a plural marker.

CIRCLE > AROUND (SPATIAL)

Latin *circus*, accusative *circum* 'circle', 'race court', 'circus' > *circum* 'around', 'on both sides of'. Ex.

Latin (Kühner and Holzweissig [1912] 1966: 935; Stolz 1991a: 7; Thomas Stolz, *personal communication*)

| | | | | | |
|--|-----------|------------------|---------------|-------------|---------------|
| <i>terra</i> | <i>se</i> | <i>convertit</i> | <i>circum</i> | <i>axem</i> | <i>suum.</i> |
| earth | REFL | turn:3:SG | around | axle:ACC | POSS:3:SG:ACC |
| 'The earth turns around its own axle.' | | | | | |

Russian *vokrug* (< *v* 'in' + *krug* 'circle') 'around' (Martin Haspelmath, *personal communication*). Albanian *rreth* 'circle' > 'around', preposition. Ex.

Albanian (Stolz 1991a: 7)

| | | |
|--------------------|----------------|----------|
| <i>rreth</i> | <i>tryezë-</i> | <i>s</i> |
| PREP | table- | ABL |
| 'around the table' | | |

Icelandic *hringur* 'ring', 'circle' > *kring* 'around'. Ex.

Icelandic (Stolz 1991a: 7)

| | | | | |
|---------------------|--------------|-----------|-----------------------|-----------|
| <i>í</i> | <i>kring</i> | <i>um</i> | <i>hús-</i> | <i>in</i> |
| PREP | around | PREP | house-DET:ACC:PL:NEUT | |
| 'around the houses' | | | | |

Welsh *cylch* 'circle', 'ring', 'area', 'class', *amgylch* 'circulation' > *o (am)gylch* 'around' (Stolz 1991a: 8). German *Ring* 'ring', *Rings* 'ring' (genitive singular, masculine) > *rings* 'around'. Ex.

German (Stolz 1991a: 9)

| | | |
|-----------------------------|--------------|------------|
| <i>rings um</i> | <i>den</i> | <i>Dom</i> |
| around | DET:ACC:SG:M | cathedral |
| 'round about the cathedral' | | |

Compare also Basque *inguru* or *ingiru* 'vicinity', which derives from Latin *in gyru* 'in a circle', 'in a ring'. Ex.

Basque (anonymous reader)

| | | | | |
|---|-----------|--------------|----------------|-----------|
| <i>etxearen inguruan</i> | | | | |
| <i>etxe-</i> | <i>a-</i> | <i>(r)en</i> | <i>inguru-</i> | <i>an</i> |
| house- | DET-GEN | | vicinity- | LOC |
| 'around the house' / 'in the vicinity of the house' | | | | |

This grammaticalization has so far been found to occur in European languages only. Nevertheless, it is an instance of a process whereby a noun, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; compare, for example, **BRANCH**; **CHILD**; **PLACE**; **TREE**.

COME > (1) CONSECUTIVE

Kxoe *yàá* 'come' > *ya(a)* new-event marker (paraphrasable by 'watch out, now something new is going to happen that is relevant to what follows' (Heine 2000a). Ex.

Kxoe (Heine 1997e: 8, 19)

| | | | | | | |
|-------------------------------------|-------------|-------------|-----------|-------------|-----------|-----------|
| (a) <i>xà-</i> | <i>//ùà</i> | <i>yáa-</i> | <i>tè</i> | <i>ùàn-</i> | <i>m̀</i> | <i>dà</i> |
| DEM- | 3:M:SG | come-PRES | | hare-3:M:SG | | POSS |
| <i>//'áe</i> | <i>ki.</i> | | | | | |
| home | LOC | | | | | |
| 'And they came to the hare's home.' | | | | | | |

| | | | | | | |
|-----|--------------------|-----------|---------------|--------------|-----------|------------|
| (b) | <i>tákò</i> | <i>ya</i> | <i>/x'ánn</i> | <i>k'úú-</i> | <i>á-</i> | <i>hin</i> |
| | then | come | very | be:angry- | JUNC- | PAST |
| | <i>taá- úún-</i> | | <i>ci</i> | <i>ki.</i> | | |
| | grandmother- | | 3:F:SG | LOC | | |

'There he (the crocodile) got very angry with his grandma.'

Godié *yi* 'come' > sequential clause marker. Ex.

Godié (Marchese 1986: 144)

| | | | | | |
|----|-----------|------------|----|-----------|------------|
| ɔ | <i>yi</i> | <i>nú-</i> | ɔ | <i>yi</i> | <i>li.</i> |
| he | come:FACT | then | he | come | eat |

'He came and ate.'

Negerhollands CD (Boretzky 1983: 212) *kō* 'come' > new-event marker after *kō* 'come'. Ex.

Negerhollands CD (Boretzky 1983: 212)

| | | | | | | |
|-----------|----------|-----------|-----------|-----------|-----------|----------------|
| <i>am</i> | <i>a</i> | <i>kō</i> | <i>fo</i> | <i>kō</i> | <i>nē</i> | <i>slāvun.</i> |
| (he | ? | come | PURP | come | take | slave) |

'He came to take slaves.'

Compare Traugott (1978: 384). In narrative discourse of some African languages, verbs for 'come' and 'go' have become new-event markers (Heine 2000a); that is, they may be used to present new (or unexpected) events and, in this capacity, tend to assume a CONSECUTIVE function. This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to markers used to structure narrative discourse; compare FINISH; GO.

COME > (2) CONTINUOUS

Spanish *venir* + present participle > progressive marker (Bybee and Dahl 1989: 58). Tatar gerund + *kil-* 'come' > progressive (Bybee and Dahl 1989: 58).

While the two languages belong to different phyla, more examples are required to substantiate this reconstruction. Nevertheless, this appears to be another instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; cf. BEGIN; COME TO; DO; GO TO; FINISH; KEEP; LEAVE; PUT.

COME > (3) HORTATIVE

German *kommen* 'come' > *komm . . . !* (solidarity imperative marker). Ex.

German

| | |
|---------------------------------|-------------------------|
| <i>Komm, denk darüber nach!</i> | <i>Komm, geh jetzt!</i> |
| come think about:it after | come go now |
| 'Come on, think about it!' | 'Come on, go now!' |

Compare English *Come on!*, which is often used to urge a person or a team to make a greater effort or to succeed (anonymous reader). Baka *dɔ* 'come' > *dɔ*, marker of mitigated imperative. Ex.

Baka (Brisson and Boursier 1979: 66; Christa Kilian-Hatz, personal communication)

(a) ʔá dɔ- ε na sià lè.
 3:SG:NAR come-PAST INF see 1:SG:OBJ
 'He has come to see me.'

(b) dɔ ɡɔ!
 come go
 '(Come on,) go!'

Ngbaka Ma'Bo *dɔ* 'come' > marker of solidarity imperative. Ex.

Ngbaka Ma'Bo (Thomas 1970: 599, 601)

(a) ʔī dɔ- ʔā- mólò yèè.
 she come-INF-kill them
 'She came to kill them.'

(b) dɔ- hā náā!
 come-take wood
 '(Come on) take the wood!'

Nama *haa* 'come' > imperative marker. Ex.

Nama (Rust 1965: 75)

Sa ɡòasa ma te ha!
 'Come on, give me your knife!'

Compare also Nama *há* 'come' > *ha*, a hortative marker (Krönlein 1889: 1, 141–2).

!Ora (Korana) *hā* 'come' > hortative/optative marker (called "imperative" by Meinhof 1930: 60). Ex.

Korana (Meinhof 1930: 54)

hā- kham !ū
 'Let's go!'

This appears to be a process whereby certain verbs assume an interpersonal function in specific contexts involving commands and related interpersonal functions; compare GO > HORTATIVE; LEAVE > HORTATIVE; LEAVE > PERMISSIVE.

COME > (4) VENITIVE

To'aba'ita and Fijian *mai* 'come' > venitive marker (Lichtenberk 1991a: 481–2).

Lahu *là* 'come' > *la*, venitive ("cisative") particle. Ex.

Lahu (Matisoff 1991: 395–6)

(a) *mû-yè là ve*
 'It's raining.' (lit.: 'rain comes')

(b) *mê? la*.
 'Blow in this direction.' / 'Blow hither.'

Aranda **intye-* 'come' (verb of motion) > *-intye* 'associated motion' (do the action denoted in the verb stem while coming), suffix (Wilkins 1989: 275, 277). Ex.

Aranda (Wilkins 1989: 275)

alpe-rltiw-ø-aye! Ularre uthne rr-intye-tyele!

‘(You mob) go home! Don’t come fighting with each in this direction!’
(old dog speaking to a pack of other dogs)

Mandarin *lái* ‘come’ (verb of motion) > *-lái* ‘toward the speaker’ (final component of a resultative verb phrase; Li and Thompson 1981: 59). Ex.

Mandarin (Li and Thompson 1981: 59)

tā *sòng-lái-* *le* *yí-* *ge* *xiāngzi.*

3:SG send-come-PFV one-CLASS suitcase

‘S/He sent over (toward the speaker) a suitcase.’

Proto-Chadic **wat* ‘come’, ‘come in’, ‘return’ > Hausa *-oo*, venitive extension (Frajzyngier 1987c: 32). Haitian CF *vini* (< French *venir*) ‘come’ > ‘here’, ‘toward here’. Ex.

Haitian CF (Sylvain 1936: 135)

Li ralé šèy- la vini.

(3:SG pull chair-DEF here)

‘He pulled the chair here.’

English *come* > Tok Pisin PE *-kam*, directional marker. Ex.

Tok Pisin PE (Givón 1991a: 89)

i- wokabaut i- kam.

PRED-move PRED-come

‘She moved/was moving toward (a reference point).’

Negerhollands CD *ko(o)* (<Dutch *komen*) ‘come’, motion verb > directional (venitive) adverb (Stolz 1986: 192, 216).

This is an instance of a process whereby a verb on account of some salient semantic property gives rise to a grammatical marker highlighting that property; see also COME FROM; COME TO; CROSS; EXCEED; PASS; RESEMBLE.

COME FROM > (1) ABLATIVE (LOCATIVE, TEMPORAL)

Ewe *tsó* ‘come from’ > preposition ‘from’ (Westermann 1907: 97). Swahili *kutoka* ‘to come from’ (intransitive verb) > *kutoka* ‘from’ (locative or temporal preposition); *kutoka Nairobi mpaka Mombasa* ‘from Nairobi to Mombasa’. Lingala *-úta* ‘come from’ > *útá*, *út’ó* ‘since’, ‘from’. Ex.

Lingala (van Everbroeck 1958: 72, 158)

útá lóbi naléi náino tɛ.

‘Since yesterday I haven’t eaten anything.’

French *sortir* ‘come out’ > Haitian CF *sòt(i)* ‘(out) from’. Ex.

Haitian CF (Hall 1953: 55)

| | | | | | | |
|-----------|-------------|--------------|-----------|-----------|------------|-----------------|
| <i>yo</i> | <i>pòté</i> | <i>bagay</i> | <i>sa</i> | <i>yo</i> | <i>sòt</i> | <i>nâ- mòn.</i> |
| (they | bring | thing | DEM | PL | from | LOC-hill) |

‘they bring these things from the hills.’

This is an instance of a process whereby a verb, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; compare, for example, COME TO; CROSS; EXCEED; GO TO; PASS; RESEMBLE.

COME FROM > (2) NEAR PAST

Jiddu (Somali dialect) *-ooku* ‘come’ > near past tense marker. Ex.

Jiddu (Marcello Lamberti, personal communication)

(a) *y- ooku.*

3:M-come
‘He comes.’

(b) *y- aam-ooku*

3:M-eat- come
‘He has just eaten.’

Teso *-bu*, PL *-potu* ‘come’ > past (perfective) auxiliary. Ex.

Teso (Hilders and Lawrance 1956: 14; Heine and Reh 1984: 104)

| | | |
|-----------|-----------|----------------|
| <i>a-</i> | <i>bu</i> | <i>ke-ner.</i> |
| I- | come | I- say |

‘I said.’

Sotho *-tsöa* ‘come from’ > *-tsöa-*, immediate past tense prefix. Ex.

Sotho (Doke and Mofokeng [1957] 1985: 204)

| | | |
|------------|--------------|--------------|
| <i>kē-</i> | <i>tsöa-</i> | <i>rèka.</i> |
|------------|--------------|--------------|

‘I have just bought.’ (lit.: ‘I have come from buying’)

Klao *dε* ‘come’ > past tense marker. Ex.

Klao (Marchese 1986: 124)

| | | | |
|----|-----------|-----------|------------|
| ɔ | <i>dε</i> | <i>dε</i> | <i>di.</i> |
| he | come | thing | eat |

‘He just ate.’ (lit.: ‘He came from eating’)

Nyabo *wɔ* ‘come’ > marker of past actions. Ex.

Nyabo (Marchese 1986: 124)

| | | | | |
|----|-----------|-------------|------------|-----------|
| ɔ | <i>wɔ</i> | <i>gblà</i> | <i>pi-</i> | <i>ε.</i> |
| he | come | rice | cook- | NOMIN |

‘She’s been cooking rice.’

Margi *ghè d’á* to come from’ > ‘to have done before’, ‘in the past’ (Hoffmann 1963: 220).

Compare also the following examples, where instead of a (near) past tense marker, a “perfect” morpheme has evolved: French *venir de* ‘come from’ > perfect. Ex.

French

- (a) *Il vient de Paris.*
 he comes from Paris
 ‘He comes from Paris.’
- (b) *Il vient d’aller à Paris.*
 he comes from go to Paris
 ‘He has just gone to Paris.’

Yoruba *ti* ‘to come out of’ > “perfect tense” marker. Ex.

Yoruba (Ward 1952: 139)

- O ti lo.*
 (he come:out go)
 ‘He has gone.’

Malagasy *avy* ‘come’ > near past marker. Ex.

Malagasy (Bourdin 1999: 1)

- avy ni- lalao aho.*
 come PAST-play I
 ‘I (have) played just now.’

This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare **BEGIN**; **COME TO**; **DO**; **FINISH**; **GO TO**; **KEEP**; **LEAVE**.

COME TO > (1) BENEFACTIVE

This is a process that appears to have occurred repeatedly in Senufo languages and dialects. Pilara *pɔ̃* ‘come’ > benefactive marker. Ex.

Pilara (Carlson 1991: 212)

- (a) *wi pɔ̃ ga.*
 3:SG come here
 ‘S/He came here.’
- (b) *ki kã u pɔ̃.*
 it give him/her to
 ‘Give it to him/her.’

Lahu *là* ‘come’ > *là*, benefactive particle (indicating that the verbal action is for the benefit of or impinges upon a nonthird person). Ex.

Lahu (Matisoff 1991: 395–6)

- (a) *là.*
 ‘Come.’

(b) *chɔ lâ.*

‘Chop for me/us/you.’

This grammaticalization appears to be an instance of a more general process whereby verbs denoting location or motion serve as structural templates to express relational (adpositional) concepts; compare **ARRIVE**; **COME FROM**; **GO TO**; **PASS**.

COME TO > (2) CHANGE-OF-STATE

This grammaticalization includes processes leading to what tends to be described as resultative markers, for example, in Fijian, Vangunu, and To’aba’ita (Lichtenberk 1991a: 487–8); for example, To’aba’ita *mai* ‘come’ > *-mai*, in-gressive/resultative marker. Ex.

To’aba’ita (Lichtenberk 1991a: 487)

fanua’e rodo na- mai.

place it:PFV be:dark PERF-COME

‘It has become dark.’

Perhaps related to this grammaticalization is the development of Chinese *lai*, which throughout Chinese history was used as a verb meaning ‘come’. In Early Mandarin (around the twelfth century) it developed uses of a perfect marker, its function being to relate “two time points, a point in the past and speech time,” possibly being a marker of “currently relevant state” (Sun 1996: 98). Ex.

Early Mandarin (*Jingde chuandenglu*; quoted from Sun 1996: 98)

daxiong shan- xia cai junzi lai.

Daxiong mountain- below pick fungi LAI

‘I have been to the foot of the Daxiong mountain to pick mushrooms.’

English *come* > linking verb; for example, *come true*, *come undone*. Sango *ga* ‘come to’ > ‘become’ (inchoative marker; Thornell 1997: 122). Ex.

Sango (Thornell 1997: 118)

(a) *Ě gä ge.*

1:PL come:to here

‘We come here.’

(b) *Tënë à:gä polêlê.*

word AGR:become clear

‘The speech became clear.’

This grammaticalization appears to be particularly common in pidgin and creole languages: Guyanese CF *vini* ‘come (from)’ > change-of-state marker. Ex.

Guyanese CF (Corne 1971: 90)

i vini malad.

(3:SG come sick)

‘He has become sick.’

Seychelles CF *vin(i)* ‘come’ > ‘become’. Ex.

Seychelles CF (Corne 1977: 63, 80)

- (a) *i demânde si mô a kapab vini.*
 (3:SG ask if 1:SG FUT be:able come)
 ‘He asks if/whether I will be able to come.’
- (b) *mô pu vin ris ê zur. i n vin larpâter.*
 (1:SG FUT come rich one day) (he CPL come surveyor)
 ‘I shall be(come) rich one day.’ ‘He became a surveyor.’

Fa d’Ambu CP *bi* ‘come’ > resultative aspect marker. Ex.

Fa d’Ambu CP (Post 1992: 159)

tyipa bi sxa dual eli kumu pasa.
 stomach come PART hurt 3:SG eat surpass
 ‘His stomach hurt; he had eaten too much.’

Ghanaian PE *come* ‘come’ > ingressive aspect marker (Huber 1996). Chinook Jargon *čákwa* or *čáku* ‘come’ is found before stative verbs and occasionally before active verbs in any of the forms *čaku*, *čaw*, *č(u)* with the meaning ‘become X’, ‘get to be X’; for example, Grand Ronde Chinook Jargon *dákta čaw sik* ‘the doctor becomes sick’ (Grant 1996: 236).

This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to aspectual auxiliaries; compare DO; FINISH; GO; GO TO; LEAVE.

COME TO > (3) FUTURE

Bambara *nà* ‘come’ > *ná*, remote future marker. Ex.

Bambara (Donald A. Lessau, personal communication)

- (a) *ù tɛ nà.*
 3:PL NEG:AUX come
 ‘They don’t come.’
- (b) *à ná sà.*
 3:SG FUT die
 ‘He will die.’ (= everyone has to die some day)

Bambara *bé* auxiliary + *nà* ‘come’ > *bɛna*, near future marker. Ex.

Bambara (Donald A. Lessau, personal communication)

- (a) *ù bé nà.*
 3:PL AUX come
 ‘They come.’
- (b) *à béna sà.*
 3:SG FUT die
 ‘He will die (soon and/or surely).’

Kono *nà* (+ *-à*) ‘come’ > *náà*, near future tense marker. Ex.

Kono (Donald A. Lessau, personal communication)

(a) *í* *nà- á* *fén* *mà?*
 2:SG come-TAM what for
 'What have you come for?'

(b) *mbé* *nàà* *ń* *kó- à.*
 1:SG:TAM NFUT 1:SG wash-TAM
 'I'm going to wash myself (right now).'

Akan *ba* 'come' > *bɛ*, *bé*, *bɔ*, *bó*, future tense marker. Ex.

Akan (Welmers 1973: 353–4; Marchese 1986: 123)

ò- bé- bá.
 he-FUT-come
 'He's going to come.'

Wapa (Jukun dialect) *bi* 'come' > future tense marker. Ex.

Wapa (Welmers 1973: 354; Marchese 1986: 123)

ku *ri* *bi* *ya.*
 he PROG come go
 'He's going to go.'

Efik *-dì-* 'come' > future tense marker. Ex.

Efik (Welmers 1973: 354–5; Marchese 1986: 123)

ń- ðì- *dép* *mbòró.*
 1:SG-come- buy bananas
 'I'm going to buy bananas.'

Zande *ye* 'come' in the progressive construction [*na . . . ka*] > future marker *na ye ka/ne ka* (Marchese 1986: 75). Neyo *i/yi* 'come' > future tense marker (Marchese 1986: 75). Godié *yi* 'come' > future tense marker (Marchese 1986: 75). Bété *yi* 'come' > future tense marker (Marchese 1986: 75). Dida *ci* 'come' > *ci*, future tense marker (Marchese 1986: 75). Tepo *di* 'come' > future tense marker (Marchese 1986: 75). Koyo *yi* 'come' > future tense marker. Ex.

Koyo (Marchese 1986: 75)

(a) *Aḍi* *yì* *du.*
 Abi come:FACT town
 'Abi came home.'

(b) *Aḍi* *yi* *du* *mo.*
 Abi AUX town go
 'Abi will go to town.'

Gwari *ḍé* 'to come' > *ḍá*, future tense marker (Hyman and Magaji 1971: 59, 147; Heine and Reh 1984: 198). Duala *ya* 'come' > *-ya*, immediate future marker (Ittmann 1939: 93–5; Heine and Reh 1984: 132). Ex.

Duala (Heine and Reh 1984: 132)

| | | | | |
|----------|------------|-----------|--------------|--------------|
| <i>a</i> | <i>mà-</i> | <i>yǎ</i> | <i>nanga</i> | <i>wàsè.</i> |
| he | PRES-FUT | | lie | ground |

‘He will lie down right now.’

Ganda *-jjá* ‘come’ > indefinite future marker. Ex.

Ganda (Welmers 1973: 355; Marchese 1986: 124)

| | |
|-------------|-----------------|
| <i>àjjá</i> | <i>kúgéndá.</i> |
| he:come | INF:go |

‘He is going to go (sometime).’

Sotho *-tla* ‘come’ > *-tla-*, future tense marker; *-tlile hō-* ‘have come to’ > *-tlil’o-*, future tense marker (Doke and Mofokeng [1957] 1985: 206–7). Zulu *-za* ‘come’ > *-za-*, marker of immediate future. Ex.

Zulu (Mkhatshwa 1991: 96)

- (a) *Ngi-* *ye-* *za.*
 (1:SG-?- come)
 ‘I’m coming.’
- (b) *U-* *za-* *ku-* *fika.*
 (2:SG-FUT-INF- arrive)
 ‘He’ll arrive.’

Acholi *bino* ‘to come’ > *-bi-*, future tense marker. Ex.

Acholi (Malandra 1955: 76; Bavin 1983: 151; Heine and Reh 1984: 92)

- (a) *lyɛc* *o-* *bino.*
 elephant 3:SG-came
 ‘The elephant came.’
- (b) *an* *a-* *bi-* *camo.*
 1:SG 1:SG-FUT-eat:INF
 ‘I’ll eat.’

Teso *abunere (ko)* ‘to come’ > *-bun-*, future tense marker. Ex.

Teso (Hilders and Lawrance 1956, 1958)

| | | | | |
|-----------|-------------|----------|-----------|---------------|
| <i>e-</i> | <i>bun-</i> | <i>i</i> | <i>a-</i> | <i>anyun.</i> |
| (3:SG- | come- | PRES | INF- | see) |

‘He will see.’

Lotuko *tuna* ‘to come’ > future tense marker. Ex.

Lotuko (Muratori 1938: 161ff.; Heine and Reh 1984: 131–2)

| | | | |
|-----------|------------|-----------|---------------|
| <i>a-</i> | <i>ttu</i> | <i>ni</i> | <i>lɛtɛn.</i> |
| 1:SG-come | I | | go |

‘I’ll leave immediately.’

Swedish *komma* ‘come’ > *komma att*, auxiliary expressing unplanned future (Werner 1986: 102–3). Tamil *vaa* ‘come’, verb of motion > auxiliary marking intended future actions. Ex.

Tamil (T. Lehmann 1989: 217)

| | | | | |
|-------------|--------------------|------------------|-------------------|------------|
| <i>naan</i> | <i>kumaar-ai-k</i> | <i>keeṭ-k-a</i> | <i>varu- kir-</i> | <i>een</i> |
| 1:SG | Kumar- ACC | ask- INF | come-PAST- | 1:SG |

‘I am going to ask Kumar.’

Chinese *lái* ‘come’ > marker of intended future actions and of purpose clauses (Matisoff 1991: 401–2).

The process COME TO > FUTURE has been discussed in a number of different works; for more details, see especially Welmers 1973: 354–5; Ultan 1978a; Fleischman 1982a, 1982b; Bybee et al. 1991. For a cognitive interpretation of the process, see Emanatian 1992. This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare BEGIN; COME FROM; DO; FINISH; GO TO; KEEP; LEAVE; PUT.

COME TO > (4) PROXIMATIVE

Lahu *là* ‘come’ > (*la* venitive >) proximative aspect marker ‘almost coming to’, ‘nearly’. Ex.

Lahu (Matisoff 1991: 395–6)

- (a) *mû-yè là ve.*
 ‘It’s raining.’ (lit.: ‘rain comes’)
- (b) *šî-la*
 ‘be close to death’

Tchien Krahn *gi* ‘come’ > ‘almost’. Ex.

Tchien Krahn (Marchese 1986: 121)

| | | | |
|-------------|-----------|------------|------------|
| <i>pidē</i> | <i>gi</i> | <i>kwo</i> | <i>la.</i> |
| plantain | come | spoil | NOMIN |

‘The plantain is almost spoiled.’

Compare NEAR; LOVE; WANT. This process is often confused with the development (>) COME TO > FUTURE. While the latter process leads to the rise of a verbal tense, the present one results in an aspect function. This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare BEGIN; COME FROM; DO; FINISH; GO TO; KEEP; LEAVE; PUT.

COME TO > (5) PURPOSE

Chinese *lái* ‘come’ > subordinating conjunction of purpose clauses. Ex.

Chinese (Matisoff 1991: 401–2)

nǐ néng yòng shénme fāngfǎ⁹ lái bāngzhù tā ne?
 2:SG can use what method (come) help 3:SG PART
 How are you going to help him?

Sapo *di* ‘come’ > goal/purpose clause marker (Marchese 1986: 144).

Since BENEFACTIVE markers may also be derived from COME TO (see COME TO > BENEFACTIVE) and may themselves develop into PURPOSE markers (see Heine et al. 1991), it is possible that PURPOSE is not immediately derived from COME TO but rather has BENEFACTIVE as an intermediate stage. In Chinese, however, the development from LAI (*lái*) ‘come to’ to purpose marker does not appear to have involved an intermediate BENEFACTIVE stage (Alain Peyraube, personal communication); more research is required on this point. This grammaticalization appears to be an instance of a more general process whereby verbs denoting location or motion serve as structural templates to express relational adpositional or subordinating concepts; compare ARRIVE; COME FROM; GO TO; LEAVE; PASS.

COMITATIVE > (1) AGENT

In this grammaticalization process comitative markers are pressed into service to introduce agents in passive constructions. Swahili *na* ‘with’, comitative preposition > agent marker in passive constructions. Ex.

Swahili

- (a) *a- li- ondoka na mke-we.*
 C1-PAST-leave with wife-his
 ‘He left (together) with his wife.’
- (b) *a- li- it- wa na mke-we.*
 C1-PAST-call-PASS by wife-his
 ‘He was called by his wife.’

(French *avec* ‘with’ >) Seychelles CF (*av*)*ek* ‘with’, general preposition > marker of the agent in passive constructions. Ex.

Seychelles CF (Corne 1977: 71)

- (a) *mô koz ek u.*
 (1:SG speak with 2:SG)
 ‘I speak to you.’
- (b) *ban brâs i n kase ek divâ.*
 (PL branch 3:SG CPL broken with wind)
 ‘The branches are/have been broken by the wind.’

(French *avec* ‘with’ >) Rodrigues CF (*av*)*ek* ‘with’, general preposition > agent marker in passive constructions. Ex.

⁹ Alain Peyraube (personal communication) tells us that the correct form of this item is *fangfa*.

Rodrigues CF (Corne 1977: 164–5)

| | | | | | |
|--------------|----------|-------------|--------------|-----------|-------------|
| <i>lisiē</i> | <i>i</i> | <i>gãy</i> | <i>morde</i> | <i>ek</i> | <i>pis.</i> |
| (dog | 3:SG | get | bite | with | flea) |

‘Dogs get bitten by fleas.’

This grammaticalization needs further exemplification; as it stands, it is confined to languages spoken in the western Indian Ocean region. Martin Haspelmath (personal communication) suggests that this may not be a process leading straight from COMITATIVE to AGENT; rather it might involve an intermediate INSTRUMENT stage. More research is required on this pathway.

COMITATIVE > (2) NP-AND

To’aba’ita *bia, bii* ‘with’, comitative preposition > ‘and’, NP-conjoining conjunction (Lichtenberk 1991b: 44, 61). The Limbu comitative suffix *-nu* is used inter alia to coordinate nominal groups as the conjunction ‘and’, whereby it is suffixed to all but the last noun in a series (Driem 1987: 49). Hausa *dà* ‘with’, comitative preposition > ‘and’, NP-conjoining conjunction (Ma Newman 1990: 10). Ga *kè* ‘with’, comitative marker > ‘and’, NP-conjoining conjunction (cf. Lord 1989: 117ff.). Dutch *met* ‘with’ > Negerhollands CD *mi* ‘with’, ‘and’, NP-coordinating conjunction (Stolz 1986: 233–7). Ewe *kplé* ‘with’, comitative preposition > ‘and’, NP-coordinating conjunction. Ex.

Ewe

- (a) *é- yi kplé wo.*
 3:SG-go with 2:SG:OBJ
 ‘She went with you.’
- (b) *Kofi kplé Kosi vá égbé.*
 Kofi and Kosi come today
 ‘Kofi and Kosi came today.’

Dogon *-le* ‘with’, comitative suffix > ‘and’, NP-conjoining connective, added to each NP (Calame-Griaule 1968: 177). Baka *tε* ‘with’, comitative preposition > ‘and’, NP-conjoining conjunction. Ex.

Baka (Christa Kilian-Hatz, personal communication)

| | | | | | | |
|--------------|-----------|------------|----------------|------------|-----------|-----------|
| <i>wósè-</i> | <i>o</i> | <i>tε</i> | <i>mókòsè-</i> | <i>o</i> | <i>tε</i> | <i>bo</i> |
| woman-PL | | COM | man- PL | | COM | people |
| <i>kòpε</i> | <i>wó</i> | <i>ngò</i> | <i>geè</i> | <i>jo!</i> | | |
| all | 3:PL | should | seek | food | | |

‘Women, men, and all other people should look for food!’

Ngbaka Ma’Bo *tε* ‘with’, comitative preposition > ‘and’, NP-conjoining conjunction (Thomas 1970: 537). Lingala *na* ‘with’, comitative preposition > ‘and’, NP-conjoining conjunction. Ex.

Lingala (van Everbroeck 1958: 72)

- (a) *elóngó na bongó*
 together with them
 'together with them'
- (b) *bísó na yé*
 3:SG and 1:SG
 'he and I'

Moré *né* 'with', comitative preposition > 'and', NP-conjoining conjunction. Ex.

Moré (Alexandre 1953b: 268–9).

ba né ma
 'father and mother'

Kupto *kán* 'with' > 'and', listing connective (Leger 1991: 27). Yagaria *-'e'/'ese'* 'with', 'together with', comitative suffix > 'and', NP-conjoining conjunction. Ex.

Yagaria (Renck 1975: 43f)

- (a) *avo- 'a- 'e'*
 father-his-COM
 'with his father'

or

- avo- 'a- 'ese'*
 father-his-COM
- (b) *dagae-'e' yale- di- 'e'*
 1:SG- and people-my-and
 'I and my people'

Turkish *ile* 'with', comitative postposition > 'and', NP-conjoining conjunction. Ex.

Turkish (Lewis [1967] 1985: 86; Ergun Cehreli, *personal communication*)

- (a) *kim:in ile gittiniz?*
 whom with go:PAST:3:PL
 'With whom did you go?'
- (b) *ben ile Ali cinemaya gidiyoruz.*
 1:SG and Ali cinema:ALL go:PRES:1:PL
 'Ali and I are going to the movies.'

French *avec* 'with' > Haitian CF *ak* 'and'. Ex.

Haitian CF (Sylvain 1936: 79)

Wè ak tādé pa mēm.
 see and hear NEG same
 'To see and to hear are not the same.'

That the directionality proposed here is correct is suggested by evidence from Chinese. For example, the Chinese verb *gong* 'to share (with)' was grammati-

calized in Late Archaic Chinese (fifth – second centuries B.C.) to an adverb meaning ‘together’, and since the Early Medieval period (second – sixth century A.D.) it developed into a comitative preposition. Ex.

Early Medieval Chinese (Bai yu jing; quoted from Peyraube 1996: 189)

| | | | | | | |
|---------------|------------|------------|--------------|------------|-----------|------------|
| <i>gong</i> | <i>duo</i> | <i>ren</i> | <i>zhong</i> | <i>zuo</i> | <i>yu</i> | <i>shi</i> |
| with | many | people | crowd | sit | at | room |
| <i>zhong.</i> | | | | | | |
| in | | | | | | |

‘(We) sat inside the room with a crowd of many people.’

The first attested example of *gong* as an NP-and conjunction is found in the Song period.

Song period Chinese (Qi guo chunqiu pinghua 7; quoted from Peyraube 1996: 189–90)

| | | | | | | |
|-------------|------------|------------|--------------|-----------|------------|-------------|
| <i>wu</i> | <i>lai</i> | <i>jiu</i> | <i>Sunzi</i> | <i>an</i> | <i>die</i> | <i>gong</i> |
| I | come | help | Sunzi | I | father | and |
| <i>Yuan</i> | <i>Da.</i> | | | | | |
| Yuan | Da | | | | | |

‘I came to help Sunzi, my father, and Yuan Da.’

Thus, *gong* experienced the following evolution: verb > adverb ‘together’ > preposition ‘with’ > conjunction ‘and’. Furthermore, Peyraube (1996: 189) argues that Chinese *he* was a verb meaning ‘to mix (up)’ and later ‘to stick together’. Since the beginning of the Tang period it came to mean ‘included’ and later to be used as a comitative preposition ‘with’. Already around the Mid-Tang period, *he* is said to have become an NP-and conjunction (Peyraube 1996: 190). In a similar fashion, the Chinese verb *tong* meaning ‘to share with’, ‘to accompany’ was grammaticalized probably during the Tang period to a comitative preposition. In Contemporary Chinese (i.e., from the nineteenth century onward), *tong* began to function as a coordinating conjunction (Peyraube 1996: 190–1).

The evolution from comitative markers to markers of noun phrase coordination appears to be well established; see especially Stassen 2000 for details. Stassen observes that ‘the grammaticalization of a comitative encoding pattern into a ‘coordination-like’ construction prototypically involves the creation of a single constituent, in which both the ‘with’-phrase and the non-comitative NP are included, and in which the two NPs gradually come to be regarded as being of equal structural rank.’

COMITATIVE > (3) S-AND

Swahili *na* ‘with’, comitative preposition (> NP-and) > S-and. Ex.

Swahili

| | | | | | |
|--------------------------|------------|------------|-----------|-----------|----------------|
| (a) <i>a-</i> | <i>li-</i> | <i>ku-</i> | <i>ja</i> | <i>na</i> | <i>mke-we.</i> |
| 3:SG-PAST-INF-COME | | | | with | wife-3:SG:POSS |
| ‘He came with his wife.’ | | | | | |

- (b) *a- li- ku- ja* *na* *ku- ondoka* *tena.*
 3:SG-PAST-INF-COME and INF-leave also
 'He came and left again.'

Mauritius CF (*av*)*ek* 'with', 'and' > 'and', combining verb phrases (rarely used). Ex.

Mauritius CF (Boretzky 1983: 261)

- Linze* *ti* *al* *Iden* *ek* *Zorz*
 (Lindsay PAST go Eden and George
ti *al* *Budyari.*
 PAST go Bhujharry)
 'Lindsay went to Eden (college) and George to Bhujharry.'

See Michaelis (forthcoming) for a more general treatment of the grammaticalization of (*av*)*ek*. NP-AND markers appear to provide one of the sources for clause-connecting markers ('and'). Thus, we may be dealing with a more general evolution COMITATIVE > NP-AND > S-AND. Concerning evidence on this directionality, see COMITATIVE > NP-AND.

COMITATIVE > (4) CONTINUOUS

Umbundu *kasi* copula + *la, l'*, comitative preposition + *oku-* infinitive > progressive. Ex.

Umbundu (Valente 1964: 281; Blansitt 1975: 24)

- okasi* *l'oku-tunga.*
 'He is building.'
tu-li *l' okulya.*
 'We're eating.'

Ngbaka Ma'Bo *té* 'with' > progressive marker (if followed by verbal nouns). Ex.

Ngbaka Ma'Bo (Thomas 1970: 17)

- 'é *té* 'ò'òò.
 he with leaving
 'He is leaving.'

Baka *te* 'with', comitative preposition > progressive aspect marker. Ex.

Baka (Kilian-Hatz 1992: 29)

- wó* *te* *na* *jo* *dandù.*
 3:PL COM INF eat honey
 'They are eating honey.'

Swahili *na* 'with' comitative preposition > *-na-*, verbal prefix marking progressive aspect (in some dialects) and present tense (in others).

Swahili

- (a) *a-* *li-* *fuat-* *ana* *na* *binti* *y-* *ake.*
 C1- PAST-follow-REC with c9:daughter c9-his
 'He followed his daughter.'

- (b) *wa- na- fuat- ana.*
 3:PL:C2- PROG-follow-REC
 'They are following each other.'

Progressive and other kinds of continuous markers may develop into markers for habitual aspects. It is not surprising, therefore, that COMITATIVE also has given rise to habitual aspect categories: Baka *te* 'with' (comitative preposition) > marker of habitual actions. Ex.

Baka (Kilian-Hatz 1992: 32)

| | | | | | |
|---------------|-----------|--------------|-----------|-----------|-------------|
| <i>Wàitò</i> | <i>kè</i> | <i>ʔé</i> | <i>te</i> | <i>na</i> | <i>banà</i> |
| Waito | DEM | 3:SG | COM | INF | care |
| <i>atìní</i> | | <i>jókò!</i> | | | |
| 1:PL:INCL:OBJ | | well | | | |

'Waito has always treated us well!'

Kala Lagau Ya *-pu*, comitative case marker > habitual aspect marker (Blake 1994: 183).

This grammaticalization appears to be an instance of a more general process whereby grammatical aspect functions are conceptualized and expressed in terms of locative or comitative constructions; see also LOCATIVE.

COMITATIVE > (5) EXIST

Swahili *na* 'with', comitative preposition > (locative class +) *-na*, existential marker. Ex.

Swahili

| | | | |
|------------|-----------|--------------|----------------|
| <i>ku-</i> | <i>na</i> | <i>asali</i> | <i>nyingi.</i> |
| LOC-be: | with | honey | plenty |

'There is plenty of honey.'

Baka *te* 'with', comitative preposition > existential marker. Ex.

Baka (Kilian-Hatz 1992: 42)

| | | | | | |
|-----------|-----------|-----------|-------------|----------|------------|
| <i>ʔe</i> | <i>te</i> | <i>bo</i> | <i>dàdì</i> | <i>a</i> | <i>bè.</i> |
| 3:SG | COM | people | plenty | LOC | party |

'There are many people at the party.'

Note that this grammaticalization is confined to one phylum in Africa; more examples from other continents are required.

COMITATIVE > (6) INSTRUMENT

Ga *kè* comitative marker > instrument marker. Ewe *kplé* 'with', comitative preposition > instrument preposition. Ex.

Ewe (Claudi and Heine 1986: 321)

- (a) *é- yi kplé wo.*
 3:SG-go with 2:SG:OBJ
 'She went with you.'

- (b) *wó- tu- a βɔtrú kplé safui.*
 3:PL-OPEN-HAB door with key
 ‘A door is opened with a key.’

Dogon *-le* ‘with’, comitative suffix > instrument suffix (Calame-Griaule 1968: 177). Baka *te* ‘with’, comitative preposition > ‘with’, instrument preposition. Ex.

Baka (Kilian-Hatz 1992: 58)

- ma à kɔnɔ wà te ngbala.*
 1:SG ASP cut firewood COM machete
 ‘I cut firewood with the machete.’

Ngbaka Ma’Bo *té* ‘with’, comitative preposition > instrument preposition. Ex.

Ngbaka Ma’Bo (Thomas 1970: 115)

- ʔ’è ’bōkò nzò- kánà- ngéè te ndiká. . . .*
 then:he hit head-mother-her with nuts
 ‘Then he hits his mother with nuts on the head. . . .’

Turkish *ile* ‘with’, comitative postposition > instrument postposition. Ex.

Turkish (Lewis [1967] 1985: 86)

- (a) *kim-in ile gittiniz?*
 ‘With whom did you go?’
 (b) *vapur ile gittiniz.*
 ‘You went by boat.’

Moré *né* ‘with’, comitative preposition > ‘with’, instrument preposition (Canu 1976: 153). Latin *cum* ‘with’, comitative preposition > instrumental preposition. Ex.

Latin (anonymous reader)

- (a) *cum uxor- e*
 with wife- ABL
 ‘with one’s wife’
 (b) *cum gladi- o*
 with sword- ABL
 ‘with a sword’

Albanian *me* ‘with’, comitative preposition > instrument preposition. Ex.

Albanian (Buchholz et al. 1993: 312)

- (a) *erdhi me të motrën.*
 (3:SG:AOR:COME with ART sister)
 ‘He came with his sister.’
 (b) *e hapa me çelës.*
 (ART 1:SG:AOR:OPEN with key)
 ‘I opened it with the key.’

Hungarian *-vel/-val*, suffix marking the comitative case > suffix marking instrument. Ex.

Hungarian (Tompa 1972: 120)

- (a) *barátjával*
friend- with
'with the friend'
- (b) *hajóval*
ship-with
'with a ship'

Bulgarian *s* 'with', adposition > instrumental adposition. Ex.

Bulgarian

- (a) *majkata* *s* *deteto*
mother:DEF with child:DEF
'the mother with the child'
- (b) *Toj* *piše* *s* *moliv.*
he write:3:SG:PRES with pencil
'He writes with a pencil.'

Imbabura Quechua *-wan* comitative marker > instrumental marker. Ex.

Imbabura Quechua (Cole 1982: 114)

- (a) *nūka* *wawki-* *wan* *kawsa-* *ni.*
my brother- COM live- I
'I live with my brother.'
- (b) *pamba-* *pi* *yunda-* *wan* *yapu-* *ni.*
field- in pair:of:oxen- INSTR plow- I
'I plow in the field with a pair of oxen.'

Mezquital Otomi *ko* 'with', comitative marker > *ko*, instrumental marker (Hess 1968: 83, 89). Yagua *-ta*, comitative suffix > instrumental suffix. Ex.

Yagua (Payne and Payne 1990: 404-5)

- (a) *sa-* *tiryq̄-* *ta-* *rà.*
3:SG- lie:down- TA- INAN
'He lies down with it (e.g., a book).'
- (b) *sa-* *j̄ichitiy-* *nú* *quiiv̄a* *quiichiy-* *ta.*
3:SG- poke- 3:SG fish knife- INSTR
'He pokes the fish with the/a knife.'

Concerning the directionality COMITATIVE > INSTRUMENT, see, for example, Lakoff and Johnson 1980; Lehmann 1982: 111; Heine et al. 1991: 163ff. More diachronic evidence is required to establish that the directionality proposed is correct.

COMITATIVE > (7) MANNER

German *mit* 'with', comitative preposition > manner preposition. Ex.

German

- (a) *Er kam mit seinen Kindern.*
 he came with his:PL child:PL
 'He came with his children.'
- (b) *Er hat es mit Absicht getan.*
 he has it with purpose done
 'He did it on purpose.'

Hausa *dà* 'with', comitative preposition > manner preposition. Ex.

Hausa (Ma Newman 1990: 93, 307)

dà saurī
 (with speed)
 'fast'

Ngbaka Ma'Bo *té* 'with', comitative preposition > manner preposition. Ex.

Ngbaka Ma'Bo (Thomas 1970: 591; glosses Christa Kilian-Hatz, personal communication)

?é pá ndàá té ká'bu... .
 he pass:at place:that with anger
 'Consequently he left that place full of anger. . . .'

Albanian *me* 'with', comitative preposition > manner preposition (Buchholz et al. 1993: 312). Hungarian *-vel/-val*, suffix marking the comitative case > suffix marking manner. Ex.

Hungarian (Tompá 1972: 120)

Szeretett-el (<vel) fogad- t- ak.
 (love- with welcome-IMPERF-3:PL)
 'I was welcomed cordially.'

Tamil *-ooṭu*, suffix marking the comitative case ("sociative") > suffix marking manner. Ex.

Tamil (T. Lehmann 1989: 37-8)

- (a) *kumaar tan maṇaivi-y-ooṭu va- nt- aaṇ.*
 Kumar he:(OBL) wife- COM come-PAST-3:SG:M
 'Kumar came with his wife.'
- (b) *kumaar aṇp-ooṭu ciri- tt- aaṇ.*
 Kumar love-COM laugh-PAST-3:SG:M
 'Kumar smiled with love.'

This process probably does not lead straight from COMITATIVE to MANNER uses but appears to have INSTRUMENT as an intermediate stage, hence COMITATIVE > INSTRUMENT > MANNER. See also INSTRUMENT. Note

that the directionality proposed has not yet been established beyond reasonable doubt.

COMITATIVE > (8) PASSIVE

Baka *tɛ* 'with', comitative preposition > passive marker (with impersonal agents). Ex.

Baka (Kilian-Hatz 1992: 63)

| | | | |
|---------------------|----------|----------------|------------|
| <i>bèlâ</i> | <i>à</i> | <i>mɛ̀ɛ̀ɛ̀</i> | <i>tɛ.</i> |
| work | ASP | do:PAST | PASS:3:SG |
| 'The job was done.' | | | |

Lamang *ndà* 'with', comitative preposition > passive proclitic. Ex.

Lamang (Wolff 1983: 171–2)

| | | |
|--|-----------|--------------|
| <i>ndá</i> | <i>dá</i> | <i>zùwì.</i> |
| 'The rope is plaited.' (cf. <i>dá</i> 'plait') | | |

While these examples involve different language phyla, we have so far found no instances of the process outside Africa. More data on the conceptual nature and areal distribution of the process are required.

COMITATIVE > (9) H-POSSESSIVE

Hausa (continuous aspect +) *dà* 'with', comitative preposition > 'have' (Ma Newman 1990: 119, 307). Swahili *na* 'with', comitative preposition, *-na* 'be with' > *-na* 'have'. Ex.

Swahili

| | |
|-----------------|--------------|
| <i>a- na</i> | <i>gari.</i> |
| 3:SG-be:with | car |
| 'He has a car.' | |

Baka *tɛ* 'with', comitative preposition > 'have', marker of verbal possession. Ex.

Baka (Kilian-Hatz 1992: 40)

| | | | | |
|------------------------|-----------|-------------|------------|------------|
| <i>ʔé</i> | <i>tɛ</i> | <i>jóko</i> | <i>nda</i> | <i>kè.</i> |
| 3:SG | COM | nice | house | DEM |
| 'He has a nice house.' | | | | |

Lingala *-zala* 'be' + *na* 'with', comitative preposition > *-zala na* 'have', verbal possession (van Everbroeck 1958: 150, 160, 163). Arabic *ma'* 'with' > 'to have in hands', actual possession (Kilian-Hatz and Stolz 1992: 4–5). Mongolian *-toj/-tej/-taj*, comitative case marker > 'to own', permanent possession; Welsh 'to be' + *gyda* 'with' > 'to have' permanent possession (Kilian-Hatz and Stolz 1992: 4–5).

This grammaticalization has been described as a process whereby possession is conceptualized and expressed in terms of accompaniment (see Heine 1997a).

COMITATIVE > (10) TEMPORAL

Awtuw *-k*, instrumental/comitative marker > marker of temporal clauses (Feldman 1986: 113). German *mit* 'with', comitative and instrumental preposition > temporal preposition. Ex.

German

| | | | | |
|--------------|-----------------|---------------|------------|------------|
| <i>Mit</i> | <i>achtzehn</i> | <i>begann</i> | <i>sie</i> | <i>ein</i> |
| with | eighteen | began | she | a |
| <i>neues</i> | <i>Leben.</i> | | | |
| new:NEUT | life:NEUT | | | |

'At the age of eighteen she started a new life.'

The Basque comitative case suffix *-ekin* can be used to express time as a less usual alternative to the more common locative. Ex.

Basque (anonymous reader)

(a) *Mikelekin bizi naiz.*

| | | | | | |
|---------------|-------------|-------------|-------------------|-----------|------------|
| <i>Mikel-</i> | <i>ekin</i> | <i>bizi</i> | <i>n-</i> | <i>a-</i> | <i>iz.</i> |
| Michael- | COM | live | 1:SG:ABS-PRES-AUX | | |

'I live with Michael.'

(b) *Andre Mari eguna ostegunarekin erortzen da aurten.*

| | | | | | | |
|------------------|-------------|--------------|-----------|-----------------|-----------|----------------|
| <i>Andre</i> | <i>Mari</i> | <i>egun-</i> | <i>a</i> | <i>ostegun-</i> | <i>a-</i> | <i>(r)ekin</i> |
| lady | Mary | day- | DET | Thursday- | DET-COM | |
| <i>eror-tze-</i> | <i>n</i> | <i>d-</i> | <i>a</i> | <i>aurten.</i> | | |
| fall- | IMPFV-LOC | PRES-AUX | this:year | | | |

'Mary's Day falls on Thursday this year.'

Hausa *dà* 'with', comitative preposition > temporal preposition. Ex. *dà karfè ukù* 'at three o'clock' (Ma Newman 1990: 16, 307). Ngbaka Ma'Bo *té* 'with', comitative preposition > 'in', temporal preposition. Ex.

Ngbaka Ma'Bo (Thomas 1970: 67; glosses Christa Kilian-Hatz, personal communication)

| | | | | | |
|-----------|-------------|-----------|----------------|-----------|-----------------|
| <i>ʔé</i> | <i>d̄5-</i> | <i>mū</i> | <i>mbéèmbé</i> | <i>té</i> | <i>t̄5:kpé.</i> |
| she | come-see | snail | with | morning | |

'In the morning, she met the snail.'

Baka *te* 'with', comitative preposition > temporal preposition (Christa Kilian-Hatz, personal communication). Hungarian *-vel/-val*, comitative marker > 'at', temporal suffix. Ex.

Hungarian (Tompa 1972: 120)

| | | | |
|---------------------------|----------------|-------------------|------------|
| <i>Ősszel (ősz + vel)</i> | <i>Kijevbe</i> | <i>utaz-</i> | <i>om.</i> |
| (autumn:in | Kiev | travel-1:SG:PRES) | |

'In the autumn I go to Kiev.'

Albanian *me*, comitative preposition > 'at', time preposition. Ex.

MORE-markers figuring as source concepts are in fact comparative markers; more research is required on the nature of the process.

COMPLEMENTIZER > PURPOSE

Bulgarian *če* 'that', complementizer > *če da* 'so that', purpose clause marker. Ex.

Bulgarian

(a) *Tja kaza, če šte dojde.*
 she said that FUT come:3:SG:PRES
 'She said that she would come.'

(b) *Xajde, preobleči se, če da izlezem naj-posle!*
 come:on change:clothes:IMP REFL that to
 go:OUT:1:PL:PRES at:last

'Come on, change your clothes so that we can go out at last!'

Kupto *gà* 'that', complementizer > 'so that', purpose clause marker (Leger 1991: 19). Dogon *-ga* 'that', complementizer > 'so that', 'in order to' (if the main verb is in the future tense or is nominalized). Ex.

Dogon (Calame-Griaule 1968: 88–9)

yù: kakáyadō-ga vâlasō.

'I plant in order to eat millet.'

See also Saxena 1988a. The directionality proposed here has not yet been established beyond reasonable doubt. More data to substantiate this hypothesis are required.

'Complete' see FINISH

COMRADE > (1) COMITATIVE

(The notion 'comrade' stands for a number of role relations, including 'companion', 'friend', 'neighbour', 'relative'). Balto-Finnic **kansa* 'people', 'society', 'comrade' > Estonian *kaas* 'together with', 'in the company of', comitative postposition > Estonian *-ga* 'with', comitative case marker (Stoebke 1968: 274). Sami *gu(o)i('b)* 'companion', 'comrade' > *-guin*, comitative case marker (Stolz 1992b: 118–9). The Basque noun *kide* 'companion', 'fellow', 'mate', applied to both people and things, appears to be the source of the most widespread comitative case ending, *-ekin*.¹⁰ Ex.

Basque (anonymous reader)

(a) *oin- (e)ta- ko bat eta ber- e kide- a*
 foot-INDEF-N one and same-GEN mate-DET
 'a shoe and its mate'

¹⁰ The origin of this form is a postpositional phrase meaning roughly 'in the company of X' (anonymous reader).

(b) *Anarekin*

Ana- (r)e- kide- n
 Anna- GEN- company-LOC
 'with Anna'

It remains unclear whether we are dealing here with an areally confined phenomenon. More data from non-European languages are required to establish this pathway. While the data supporting this pathway are not entirely satisfactory, we seem to be dealing with an instance of a more general process whereby relational nouns give rise to relational grammatical markers.

COMRADE > (2) RECIPROCAL

(The notion 'comrade' stands for a number of role relations, including 'companion', 'friend', 'neighbour', 'relative'). Gola *dave* 'comrade' > reciprocal particle. Ex.

Gola (*Westermann 1921: 51*)

a kɔma dave.
 (they help comrade)
 'They helped each other.'

Fulfulde *band-* 'relative', noun stem > reciprocal marker (Klingenheben 1963: 142). Koromfe *dono*, PL *dombΛ* 'comrade' > *dombΛ* (*dono* when only two participants are involved), reciprocal pronoun. Ex.

Koromfe (*Rennison 1996: 110*)

ba zāŋ dombΛ gaba.
 3:PL:HUM take comrade:PL knife:PL
 'They take one another's knives.'

Gabu *akúsi* 'their neighbors' > reciprocal marker. Ex.

Gabu (*Santandrea 1961: 63, 1965: 87*)

si dra sí akúsi.
 (they insult them neighbors:their)
 'They insulted each other.'

Russian *drug* (comrade/friend:M:SG:NOM) + *druga* (comrade/friend:M:SG:ACC) > reciprocal marker (Martin Haspelmath, personal communication). Ex.

Russian

Oni nenavideli drug druga.
 they hated comrade:M:SG:NOM comrade:M:SG:ACC
 'They hated each other.'

Seychelles CF *kamarad* 'friend' > 'one another', reciprocal marker. Ex.

Seychelles CF (*Corne 1977: 48; Papen 1978: 303*)

(a) mô kamarad i n tom malad
 (my friend 3:SG CPL fall sick)

ier. . .

yesterday)

'My friend fell sick yesterday. . . .' (Corne 1977: 55)

- (b) *Nu a kapav trôp kamarad ê zur.*
 (we FUT be:able cheat REC one day)

'We'll be able to cheat each other one day.'

More research is required on the exact nature and the genetic and areal distribution of this process. This is an instance of a process whereby concrete nouns are grammaticalized to pronouns expressing relations among clause participants; compare **BODY**; **HEAD**.

CONDITIONAL > CONCESSIVE

This path of grammaticalization has been proposed by Hopper and Traugott (1993: 180); compare English *if* > concessive marker in specific contexts. Ex.

English (König 1986: 239)

This is an interesting, if complicated, solution.

See König 1986 for details; more data from other language families are required to substantiate this hypothesis.

CONTINUOUS > (1) HABITUAL

Bybee et al. (1994: 158) note that progressive markers may develop into presents and imperfectives, and in this development the progressive extends to cover habitual functions, resulting in a gram of very general meaning. Conceivably, CONTINUOUS markers may constitute an intermediate stage on the way from verb to habitual marker; see **GO**; **LIVE**; **SIT** for examples. *Kxoe //qè* 'lie, be lying', verb > *-//oè*, (a) present tense (expressing an action performed while lying), (b) continuous marker, (c) habitual marker (Köhler 1981a: 530). In *Kui*, the past tense forms of an auxiliary that can be traced back to the verb *manba* 'to live', 'to exist' are used for both progressive and habitual meaning in the past (Bybee et al. 1994: 158). The *Margi* progressive particle *əvə̀r* may signal habitual if used in a past context¹¹ (Hoffmann 1963: 176; Bybee et al. 1994: 158). More research is required to establish the significance of this pathway.

CONTINUOUS > (2) PRESENT

As has been established in a number of different studies, progressive/continuous aspect markers may assume the function of a present tense. Bybee et al. (1994: 141) propose the following interpretation of this process: "Since both present and imperfective meaning include the possibility of describing a

¹¹ Bybee et al. (1994: 158) volunteer the following account for this observation: "The development of a habitual reading for a progressive in the past before the present is again due to the difference between default readings of present versus the past. The default reading of present continues to include habitual, but since the default reading of past does not include habitual, the progressive comes to be used in that capacity."

situation as progressive, it is plausible to suppose that the more specific progressive grams may undergo development into either a present (in cases where the progressive was restricted to the present) or an imperfective (in cases where no temporal restrictions were in effect).¹² This grammaticalization appears to be part of a more general process whereby verbal aspect markers develop further into tense markers (see Comrie 1976: 99–101; Bybee 1985a: 196; Bybee and Dahl 1989: 56–7);¹² cf. PERFECT > PAST.

COPULA > (1) AVERTIVE

Russian *bylo* 'be' (3:SG:PAST:NEUT) + main verb (PAST) > avertive 'was just about to do something but . . .', 'nearly did something but . . .' Ex.

Russian (Kuteva 1998: 122)

| | | | |
|---------------|-------------------|-------------------|-----------------|
| <i>Mašina</i> | <i>bylo</i> | <i>poexala,</i> | <i>no . . .</i> |
| car:F | be:3:SG:PAST:NEUT | start:3:SG:PAST:F | but |

'The car nearly started out . . .' / 'The car was just about to start but . . .'

Romanian *era* 'be'(PAST) + conjunctive particle + main verb > avertive, 'was just about to do something but . . .' 'nearly did something but . . .' Ex.

Romanian (Coseriu 1976: 104)

| | | |
|----------------|-----------|-------------|
| <i>era</i> | <i>să</i> | <i>cad.</i> |
| be:3:SG:IMPERF | CONJ:PART | fall |

'I nearly fell.'

Finnish *olin* 'be' (PAST) + first infinitive > avertive 'was just about to do something but . . .', 'nearly did something but . . .' Ex.

Finnish (Kuteva 1998: 117)

| | | |
|--------------|---------------|-----------------|
| <i>Olin</i> | <i>kadota</i> | <i>kadulla.</i> |
| be:1:SG:PAST | fall:1:INF | in:the:street |

'I nearly fell (down) in the street.'

As is the case with other AVERTIVE markers, this grammaticalization is confined to past tense uses of the main verb. It remains to be investigated what exactly the contribution of the copula in this process is; more details and examples from other languages are required.

COPULA > (2) CONDITIONAL

Hopper and Traugott (1993: 179) observe that one of the sources of conditional connectives consists of copula constructions, and they give the following examples: Swahili *i-ki-wa* 'it being that',¹³ Japanese *nara* 'be', and Chikasaw (*h*)*oo* 'be'. Compare Russian *est' li* 'is it?' > *esli* 'if' (Martin Haspelmath, personal com-

¹² There is a synchronic regularity of morpheme ordering that might support the present reconstruction: "aspect occurs closest to the verb stem, followed by tense, and then by mood" (Bybee 1985a: 196).

¹³ Swahili *i-ki-wa* (C1-if-be) actually means 'if it is'.

munication). See also Haiman 1985b and Traugott 1985b. Note too that Chinese *SHI* 'be' has given rise to a conditional marker 'if' (Alain Peyraube, personal communication). The conceptual nature of this process is still far from clear; conceivably, this process is related to the (>) S-QUESTION > CONDITIONAL pathway.

COPULA > (3) CONSECUTIVE

Vai *á mu* 'it was' > *ámu, ámo* 'and', 'then', continuity marker in narrative discourse. Ex.

Vai (Koelle [1854] 1968: 39, 138)

| | | | | |
|------------|---------------|------------|----------|------------|
| <i>áwā</i> | <i>dókēa,</i> | <i>ámo</i> | <i>ā</i> | <i>fā.</i> |
| 3:SG | shoot | then | 3:SG | die |

'He shot him, and (so that) he died.'

Shona *ndi* emphatic copula, clitic + infinitive > 'and then', same subject consecutive marker. Ex.

Shona (Fortune 1955: 373-4; O'Neil 1935: 156)

- | | | | | |
|----------------------|---------------|------------|-------------|-------------|
| (a) <i>ndi- baβa</i> | <i>a-</i> | <i>uya</i> | <i>zino</i> | <i>uno.</i> |
| (COP-father | REL:3:SG-come | | just | now) |
- 'It is father who came just now.'
- | | | |
|--------------------------|---------------------|---------------|
| (b) <i>va- ka- oneka</i> | <i>ndo-ku- enda</i> | <i>zvavo.</i> |
| (3:PL-PAST-say:farewell | COP-INF-go | their:way) |
- 'They said farewell and then went their way.'

Kxoe *na* 'be' + *ko* subordination marker (lit.: 'being thus') > *nákò* 'and', conjunction (cf. Köhler 1989: 97f.).

While this grammaticalization has been found in two different language phyla, more data are required to substantiate it. Conceivably, this process is related to the (>) COPULA > FOCUS grammaticalization.

COPULA > (4) FOCUS

Cora *pĩrĩkĩ* 'be' following a sentence-initial pronoun or demonstrative > focus marker (Casad 1984: 173). Lamang -à associative marker + copula *'yá* > -*é*, focus marker (Wolff 1983: 256-7; Heine and Reh 1984: 157). Rendille **ahĩ* 'be' copula > nominal suffix -*é*, term focus marker (Heine and Reh 1984: 165-8). Similarly, the Japanese *Kakari-Musubi* construction is said to have involved the grammaticalization of a cleft construction to a focus construction; the *Kakari* particles can be traced back to forms of 'be' or of a verb functioning as 'be' (see Harris and Campbell 1995: 161 for a summarizing discussion).

French *c'est* 'it is' > Haitian CF *se*, focus marker. Ex.

Haitian CF (Muysken and Veenstra 1995)

| | | | | | | |
|-----------|------------|-------------|------------|-----------|-----------|-------------|
| <i>Se</i> | <i>sou</i> | <i>chen</i> | <i>mèg</i> | <i>yo</i> | <i>wè</i> | <i>pis.</i> |
| FOC | LOC | dog | thin | 3:PL | see | flee |

'It's on a thin dog that the fleas can be seen.'

Papiamentu CS *ta* copula > focus marker. Ex.

Papiamentu CS (Kouwenberg and Muysken 1995: 220–1)

- (a) *Mi ta Pedro/grandi/na kas.*
 1:SG COP Pedro/big/ in house
 ‘I am Pedro/big/in the house.’
- (b) *Ta e buki m’- a duna-bu.*
 FOC the book 1:SG-PAST give- 2:SG
 ‘I gave you the book.’

The focus function of copulas in creole languages has also been extended to question words (see Holm 1988: 180). Ex.

Papiamentu CS (Holm 1988: 180)

Ta kiko Wan ta hasi?
 (is what:thing John TAM do)
 ‘What is John doing?’

Saramaccan CE (Holm 1988: 180)

Na un-sé a bi wáka?
 (is which:side he TAM go)
 ‘Where did he go?’

For more examples from creoles, see Boretzky 1983: 220–3. What appears to characterize this evolution is that a copula having third person singular reference, functioning as the matrix predicate in a cleft construction, is reinterpreted as a marker of new information. However, since such constructions tend to involve a copular main clause plus a kind of relative clause, it may also happen that, rather than the copula, it is the relative clause marker that survives and is reinterpreted as a focus marker (see Harris and Campbell 1995: 155ff. for an example from Breton). Since copulas may be derived from demonstratives, there are languages where the focus marker resembles a demonstrative; that is, we may be dealing with an evolution: DEMONSTRATIVE > COPULA > FOCUS (cf. Byrne and Winford 1993; see also Hengeveld 1992 for more details). In fact, Chinese *SHI* might have undergone a development demonstrative > copula > focus marker (Alain Peyraube, personal communication). However, the situation appears to be more complex, as Diessel (1999b: 148ff.) has shown; see DEMONSTRATIVE > FOCUS for details.

COPULA > (5) FUTURE

Russian *budu* ‘I will be’ + infinitive > future marker (Binnick 1976: 43). Ex.

Russian

Ja budu tancevat’ segodnja večerom.
 1:SG be:1:SG:FUT dance:INF today evening:INSTR
 ‘I will dance tonight.’

Mongolian *ter alxax (bajna)* (he to:walk is) 'he will walk' (Binnick 1976: 43).

This grammaticalization appears to require the main verb to be in a nonfinite (possibly a purposive) form. The conceptual nature of the present process is still far from clear. More data, especially from other languages, are required.

COPULA > (6) OBLIGATION

Latin *esse* 'to be'; for example, *Mihi est eundum* 'I have to go' (Lehmann 1982: 30). English *be to*, marker of deontic modality. Mandarin Chinese *shì* 'be', copula > marker of modal distinctions. Ex.

Mandarin Chinese (Hengeveld 1992: 268; Li and Thompson 1981: 588)

| | | |
|--------------|------------|----------------|
| <i>Bāllā</i> | <i>shì</i> | <i>chī-de.</i> |
| guava | COP | eat-NOMIN |

'Guavas are to be eaten.' ('Guavas are (things) to be eaten.')

Yucatec *yan in bin* (exist 1:SG go) 'I have to go' (Lehmann 1982: 30). See also Hengeveld 1992: 268. More research is required on the exact nature and the genetic and areal distribution of this process.

COPULA, LOCATIVE > (1) CONTINUOUS

Godié *kù* 'be at' > progressive aspect. Ex.

Godié (Marchese 1986: 63)

- | | | | |
|-----|--------------------|-----------|-----------------|
| (a) | ɔ | <i>kù</i> | <i>sūkú.</i> |
| | he | be:at | school |
| | 'He is at school.' | | |
| (b) | ɔ | <i>kù</i> | <i>ɬli- dɬ.</i> |
| | he | be:at | sing-place |
| | 'He is singing.' | | |

Tyurama *na* 'be at' > progressive marker. Ex.

Tyurama (Prost 1964: 105; Heine and Reh 1984: 117)

| | | | |
|----------------|-----------|-----------|------------|
| <i>me</i> | <i>na</i> | <i>me</i> | <i>wu.</i> |
| 1:SG | be:at | 1:SG | eat |
| 'I am eating.' | | | |

Maninka *yé . . . lá* 'be . . . at' > progressive or durative aspect marker. Ex.

Maninka (Spears 1972: 15–16)

- | | | | | |
|-----|-----------------------|-----------|------------|------------|
| (a) | <i>à</i> | <i>yé</i> | <i>bón</i> | <i>lá.</i> |
| | (he | be | house | at) |
| | 'He is in the house.' | | | |
| (b) | <i>à</i> | <i>yé</i> | <i>nà</i> | <i>lá.</i> |
| | (he | PROG | come | PROG) |
| | 'He is coming.' | | | |

Lingala *-zala* 'be at' > durative auxiliary. Ex.

Lingala (Mufwene and Bokamba 1979: 244–6)

- (a) *Kázi a- zal- í na ndáko.*
 Kazi he-be- NPERF at house
 ‘Kazi is at home.’
- (b) *Kázi a- zal- í ko- lía.*
 Kazi he-be- NPERF INF- eat
 ‘Kazi is eating.’

The Basque locative copula *egon* ‘be (in a location or a state)’ has a limited amount of use as a continuous marker. Ex.

Basque (anonymous reader; King 1994: 384)

- (a) *Bilbo-n dago.*
Bilbo- n da- go.
 Bilbao- LOC PRES- be
 ‘He’s in Bilbao.’
- (b) *Telebista ikusten dago.*
Telebista- a ikus-te- n da- go.
 TV- DET see- IMPFV-LOC PRES- be:in
 ‘He’s watching TV.’

Burmese *nei* ‘be at’ > continuative/progressive marker. Ex.

Burmese (Matisoff 1991: 416)

- (a) *θu ʔeĩ nei te.*
 3:SG house be:at PART
 ‘He is at home.’
- (b) *θu zəgâ pyô nei te.*
 3:SG words speak be:at PART
 ‘He is speaking.’

Thai *jùu* ‘be at’ > continuative/progressive marker. Ex.

Thai (Matisoff 1991: 416)

- (a) *khun phôɔ mâj jùu bâan.*
 HON father NEG be:at home
 ‘Father is not at home.’
- (b) *khăw rian phasǎa ʔaŋrit jùu.*
 3:SG study language English be:at
 ‘He is still studying English.’

Chinese *zài* ‘be at’ > continuative/progressive marker (Matisoff 1991: 416).
 Ex.

Chinese (Alain Peyraube, personal communication)

- (a) *Ta zai Beijing. Ta zai nar chifan.*
 he be:at Beijing he be:at there eat
 ‘He is in Beijing.’ ‘He eats there.’

- (b) *Ta zai chifan.*
 he CONT eat
 'He is eating.'

Lord (1993: 216) notes that "[a] locative verb is the probable source for an incomplete aspect marker in the Kwa languages Igbo, Yoruba and Ewe, but also in Mandarin Chinese, Thai, Irish, and Finnish. . . ." All evidence available suggests that in this process it is not the locative copula on its own that turns into a CONTINUOUS marker; rather, the locative copula is part of locative proposition, called the "Location Schema" in Heine 1993; cf. Lord 1993 and Bybee et al. 1994; see also LOCATIVE. This grammaticalization appears to be an instance of a more general process whereby grammatical aspect functions are conceptualized and expressed in terms of locative concepts.

COPULA, LOCATIVE > (2) COPULA, EQUATIVE

Kenya Pidgin Swahili *iko* 'be at', locative copula > equative copula. Ex.

Kenya Pidgin Swahili

- (a) *Juma iko Nairobi.*
 Juma be:at Nairobi
 'Juma is in Nairobi.'
- (b) *Juma iko mwalimu.*
 Juma be teacher
 'Juma is a teacher.'

More evidence is required on this process, which presumably is part of a more extended pathway, namely, LOCATIVE COPULA > EXIST > COPULA. We seem to be dealing with a case of desemanticization whereby the locative content is bleached out, with the result that a classifying copula arises.

COPULA, LOCATIVE > (3) EXIST

English *there is*. Ex.

English

- (a) *Thére is my beer.* (spatial)
 (b) *There is beer at home.* (existential)

||Ani *tín* 'be at', locative copula > 'exist', existential copula. Ex.

||Ani (Heine 1999a: 24f.)

| | | | | |
|-----------------------------|--------------|------------|------------|-------------|
| <i>âxùè</i> | <i>tshàá</i> | <i>tín</i> | <i>rê?</i> | <i>tín.</i> |
| there | water | exist | Q | exist |
| 'Is there water? There is.' | | | | |

Swahili *-ko* 'be at' > 'exist' when there is no locative complement. Ex.

Swahili

- (a) *Pombe y- angu i- ko nyumba-ni.* (spatial)
 beer c9-my c9-be:at home- at
 'My beer is at home.'

- (b) *Pombe* *i-* *ko.* (existential)
 beer c9- be:at
 ‘There is beer; beer exists.’

Nubi CA *fi* ‘be at’, locative copula > existential copula. Ex.

Nubi CA (Heine 1982b: 40, 54)

- (a) *úo* *fí* *ííni.*
 he be:at here
 ‘He is here.’
- (b) *yaá* *fí* *ákíli . . .*
 TOP exist food
 ‘and there was food . . .’

This interpretation tends to arise whenever locative copulas are used without a locative complement. It would seem that in a number of languages, locative copulas assume an existential function once the locative complement is omitted.

COPULA, LOCATIVE > (4) LOCATIVE¹⁴

Ewe *le* ‘be at’ > ‘at’, preposition. Ex.

Ewe

- (a) *agbalēá* *le* *kplǎ́á* *dzi.*
 book:DEF be:at table:DEF on
 ‘The book is on the table.’
- (b) *me* *kpó* *lóri* *le* *mó* *dzi.*
 1:SG see lorry at street top
 ‘I saw a lorry on the street.’

Supyire *na* ‘be at’, locative copula > *na* ‘at’, ‘on’, locative postposition (Carlson 1991: 207–9). Kikuyu *kū-rī*, *kwī* ‘be at’ > locative preposition ‘to’, ‘from’ (Barlow 1960: 200, 236). Ex.

Kikuyu (Barlow 1960: 200)

- Twara* *kwī* *mūndū* *ūcio.*
 (take to man that)
 ‘Take (it) to that man.’

Chinese *zài* ‘be at’ > ‘at’, ‘in’, preposition (Hagège 1975; see Peyraube 1996: 182–5 for details). Ex.

Chinese (Hagège 1975: 154)

- a) *tā* *zài* *jiā* *lǐ.*
 he be:at house inside¹⁵
 ‘He is at home.’

¹⁴ There is a possible counterexample to this grammaticalization: the Chinese locative copula *zai* ‘to be at’ has been claimed to be derived from an adposition *zai* ‘at’ (see Peyraube 1996: 191).

¹⁵ Alain Peyraube (personal communication) suggests that instead of ‘inside’, a more appropriate gloss would be ‘in’ since we are not dealing with a disyllabic localizer.

- b) *tā* *zài* *jiā* *lǐ* *xǐ* *yīfu*.
 he in house inside¹⁶ wash clothes
 ‘He washes clothes at home.’

Yao Samsao *yǐm* ‘be at’ > ‘in’, preposition (Matisoff 1991: 417–8). Hmong *nyob* ‘be at’ > “verposition.” Ex.

Hmong (Matisoff 1991: 418)

- (a) *kuv* *txiv* *tsis* *nyob* *hauv* *tsev*.
 1:SG male NEG be:at inside house
 ‘My father is not at home.’
- (b) *nws* *pw* *nyob* *hauv* *txaj*.
 3:SG lie be:at inside room
 ‘He’s sleeping in the room.’

Early Archaic Chinese (eleventh–sixth centuries B.C.) *zai* ‘to be located at’, ‘to reside in’, locative verb > Late Medieval Chinese (seventh–mid-thirteenth centuries A.D.) *zai* ‘at’, ‘in’, general locative preposition (Peyraube 1994, 1996: 182–5).

This path of grammaticalization has been much discussed in the relevant literature; see, for example, Heine 1993 and Bybee et al. 1994. It appears to be a classical instance of desemantization, whereby the predicate function of the copula is bleached out, with the result that there remains a relational locative marker.

COPULA, LOCATIVE > (5) H-POSSESSIVE

Lezgian *gwa*, locative copula > marker of temporary possession (predicative).
 Ex.

Lezgian (Haspelmath 1993: 318)

- (a) *Ruxwa-jar-ni* *ruš-* *ar* *sad-ni* *ada-n*
 son- PL-and daughter-PL one-even he- GEN
pataw *gwa- č.*
 near be:at-NEG
 ‘None of his sons and daughters are near him.’
- (b) *Dušman-ri-* *w* *tup-* *ar* *gwa-* *č.*
 enemy- PL- ADE canon- PL be:at- NEG
 ‘The enemies do not have canons.’

Lezgian *awa* ‘be in’, locative copula > ‘have’, marker of predicative possession.

Lezgian (Haspelmath 1993: 317f.)

- (a) *Tükwend-* *a* *gzaf* *mal* *awa*.
 store- INE many goods be:in
 ‘There are many goods in the store.’

¹⁶ Alain Peyraube (personal communication) suggests that instead of ‘inside’, a more appropriate gloss would be ‘in’ since we are not dealing with a disyllabic localizer.

- (b) *Pul* *ada-* *q^h* *gzaf* *awa.*
 money he- POESS much be:in
 ‘He has a lot of money.’

Estonian (Lehiste 1969: 325)

isal *on* *raamat.*
 (father:ADE 3:SG:be book:NOM)
 ‘Father has (a) book.’

Modern Irish (Orr 1992: 252)

tá *leabhar* *agam.*
 is book at:me
 ‘I have a book.’

The source structure that can be held responsible for this grammaticalization process has been described by Heine (1997a) as the “Location Schema,” which has the form [*Possessee is located at the possessor’s place*]; see also LOCATIVE.

CROSS (‘to cross’) > ACROSS

Thai *khâam* ‘cross over’ > ‘across’, preposition (verposition). Ex.

Thai (Matisoff 1991: 434)

pĥuuujĭŋ *dəən* *khâam* *thə nŏn* *paj* *léew.*
 woman walk cross street go already
 ‘The woman went off across the street already.’

Tamil *taan̄tu* ‘cross’, verb of motion > *taan̄-ti* (participle) ‘across’, ‘beyond’, locative postposition. Ex.

Tamil (Lehmann 1989: 130)

eñkaḷ *viītu* *koovil- ai-t* *taan̄ti* *iru-* *kkir-*
 we:OBL house temple-ACC across be- PRES-
atu.
 3:SG:N
 ‘Our house lies across the temple.’

Mandarin *guò* ‘cross’, verb of motion > *-guò* ‘over’, ‘across’, directional marker (Li and Thompson 1981: 59–60). Ex.

Mandarin Chinese (Li and Thompson 1981: 59–60)

tā *tiào- guò* *nèi- tiáo* *hé* *le.*
 3:SG jump-cross that-CLASS river CRS
 ‘S/He jumped over that river.’

Conceivably, the development from CROSS to an adposition ‘through’, ‘by means of’ (Hagège 1993: 211) should also be considered here.¹⁷ This grammaticalization appears to be an instance of a more general process whereby verbs

¹⁷ Alain Peyraube (personal communication) doubts, however, whether such a reconstruction is empirically justified.

denoting location or motion serve as structural templates to express relational (adpositional) concepts; compare COME FROM; COME TO; FOLLOW; GO TO; LEAVE; PASS.

D

DATIVE > (1) COMPARATIVE

Easter Island *ki*, dative preposition > marker of standard of comparison. Ex.

Easter Island (Chapin 1978: 147)

| | | | | | | |
|-------------|-------------|-------------|--------------|------------|-----------|-----------|
| <i>Poki</i> | <i>nei,</i> | <i>poki</i> | <i>(ata)</i> | <i>iti</i> | <i>ki</i> | <i>te</i> |
| boy | this | boy | more | small | DAT | the |
| <i>poki</i> | <i>ena.</i> | | | | | |
| boy | that | | | | | |

‘This boy is smaller than that one.’

Susu *be*, benefactive/dative postposition > comparative postposition. Ex.

Susu (Friedländer 1974: 62)

| | | | |
|---------------|-------------|----------------|------------|
| <i>Afriki</i> | <i>fura</i> | <i>foretaa</i> | <i>bè.</i> |
| (Africa | be:hot | Europe | for) |

‘Africa is hotter than Europe.’

See Stassen 1985 for more examples. This pathway is probably related to a process whereby spatial case markers give rise to markers of standard of comparative constructions; compare ABLATIVE; LOCATIVE; UP.

DATIVE > (2) PATIENT

Dolakha-Newari *-ta* (dative case marker) > patient marker. Ex.

Dolakha-Newari (Genetti 1994: 51)

| | | | | | | | |
|-------------|-----------|-------------|-----------|------------|-----------|-----------------|--------|
| <i>turi</i> | <i>-e</i> | <i>dani</i> | <i>-n</i> | <i>sā-</i> | <i>ta</i> | <i>khøj-an.</i> | ... |
| millet-GEN | | owner-ERG | | cow-DAT | | see- | PARTCP |

‘The millet owner saw the cow. . . .’

Old English *him*, third person dative masculine pronoun > Modern English *him*, third person masculine accusative/dative pronoun (García 1985: 281–4); Old English *hire*, third person dative feminine pronoun > Modern English *her*, third person accusative/dative pronoun (García 1985: 281–4). Spanish *a*, preposition marking dative objects > preposition marking accusative objects with animate nouns (Bossong 1985: 310); see also Lehmann (1982: 82, 109). This grammaticalization appears to be part of a more general path of grammaticalization, for which see ALLATIVE > PATIENT.

DATIVE > (3) A-POSSESSIVE

This grammaticalization has been described as one of the properties of the Balkan Sprachbund but it is in no way confined to this region; rather, it constitutes a grammaticalization of worldwide distribution.

Armenian (Koptjevskaja-Tamm forthc.)

- (a) *Yes* *girk'-ə* *tvec'i* *Petros-i-* *n.*
 I book-DEF gave Peter- DAT:SG-DEF
 'I gave the book to Peter.'
- (b) *Petros-i* *girk'-ə*
 Peter- GEN:SG/DAT:SG book-DEF
 'Peter's book'

Northern Swedish (dialect of Västerbotten; Koptjevskaja-Tamm forthc.)

- (a) *vis* *hara-num* *kort-e*
 show hare-DEF:M:SG:DAT card-DEF:NEUT:SG
 'to show the card to the hare'
- (b) *bo:k- a* *prest- um*
 book-DEF:F:SG:NONMARKED priest-DEF:M:SG:DAT
 'the priest's book'

Standard Norwegian (Koptjevskaja-Tamm forthc.)

Hatt-en *till* *mann-en*
 hat- DEF to man- DEF
 'the man's hat'

Diyari *-ya* (and other suffixes), dative marker > marker of alienable possession.

Diyari (Austin 1981: 137)

nulu *kuḍu* *paku-yi* *wiḷa- ya* *wana- li.*
 he:ABS hole:ABS dig- PRES woman-DAT digging:stick-ERG
 'He is digging a hole with a woman's digging stick.'

Aranda (Wilkins 1989: 135, 179)

Toby-ke *alere*
 Toby-DAT child
 'Toby's child'

Baka *pe*, dative, benefactive particle > marker of A-possession. Ex.

Baka (Christa Kilian-Hatz, personal communication)

- (a) *ʔé* *à* *yɔ* *pe- è* *jo.*
 3:SG ASP refuse DAT-1:SG:OBJ food
 'He refuses (to give) me food.'
- (b) *ma* *à* *geè* *pe- è* *mɔ̀ni.*
 1:SG ASP search POSS-1:SG:OBJ money
 'I am searching for my money.'

This process has occurred frequently in creole languages (see, e.g., Goodman 1964: 53 for French-based creoles). It has been described in Heine 1997a as involving a "Goal Schema." The dative in Greek is a possible counterexample to the directionality observed here: it is said to be based on an older genitive dating back to the first centuries A.D. (Koptjevskaja-Tamm forthc.).

DATIVE > (4) B-POSSESSIVE

As the source of B-POSSESSIVE constructions, DATIVE appears to be fairly seldom made use of. French *à*, allative/dative preposition > marker of belong-possession. Ex.

French

- (a) *Donne le livre à Paul!*
 give the book to Paul
 'Give Paul the book!'
- (b) *Le livre est à moi.*
 the book is to me
 'The book belongs to me.'

German

- (a) *Er hilft mir.*
 he help:3:SG:PRES 1:SG:DAT
 'He helps me.'

Colloquial German

- (b) *Das Buch ist mir.*
 the book is 1:SG:DAT
 'The book is mine.'

For more details on this process, see Heine 1997a.

DATIVE > (5) H-POSSESSIVE

Lezgian -z, (direction marker >) dative marker > possessive marker. Ex.

Lezgian (Haspelmath 1993: 88f)

- Ada- z xtul- ar awa.*
 she- DAT grandchild-PL be:in
 'She has grandchildren.'

Breton (Orr 1992: 252-3)

- ur velo c'hlas am eus.*
 a bike blue to:me is
 'I have a blue bike.'

Ik (Heine 1983: 157)

- ía hoa nci- kʰ.*
 be:at:3:SG house 1:SG-DAT
 'I have a house.'

Latin (Lyons 1967: 392)

- Est Johanni liber.*
 (is John:DAT book:NOM)
 'John has a book.'

This process has been described in Heine 1997a as involving the “Goal Schema,” which has also given rise to other kinds of possession; see **DATIVE > A-POSSESSIVE**, **DATIVE > B-POSSESSIVE**.

‘Defeat’ see **EXCEED**

DEFINITE > SUPERLATIVE

This process requires specific contexts to take place. Consider the following example from French, where definiteness is the only means of distinguishing superlative from comparative predications:

French

- (a) *Marie est plus sage.*
 Mary is more wise
 ‘Mary is wiser.’
- (b) *Marie est la plus sage.*
 Mary is the more wise
 ‘Mary is the wisest.’

Jensen (1934: 111) cites a number of languages in which definiteness appears to be the only means of marking superlatives, where an expression of the form ‘X is the big one’ has been grammaticalized to a superlative construction (= ‘X is the biggest’), and Ultan (1972: 124, 142) highlights that cross-linguistically superlatives tend to be associated with definite marking; note that, like definite participants, referents of superlative expressions are assumed to have unique reference (Heine 1997b: 126). In some languages, a personal pronoun, rather than a definite article, may be added to a predication to express the notion of a superlative. Ex.

||Ani (Heine 1999a: 63)

- (a) *khó- mà /éú-mà.*
 person- M:SG big-M:SG
 ‘He is big.’
- (b) *khó- mà /éú-ín xà- má.*
 person- M:SG big-M:SG DEM-M:SG
 he big he
 ‘He is the biggest.’

More research is required on the exact conceptual nature of this process.

DEMONSTRATIVE > (1) COMPLEMENTIZER

English *that*, demonstrative > complementizer. German *das* ‘that’, ‘the’, demonstrative pronoun and definite article of the neuter gender > *dass* ‘that’, complementizer. This process appears to be due to the reinterpretation of certain patterns of direct speech (e.g., *She said that: there is no money*) as a main clause + complement clause combination (*She said that there is no money*), where

the demonstrative object of the matrix clause, referring cataphorically to the next clause, is reinterpreted as a marker introducing a complement clause. Lockwood (1968) discusses this evolution using the following example from Faroese, where the demonstrative *tadh* 'that', illustrated in (a), developed into the complementizer *at*; compare (b).

Faroese (Lockwood 1968: 222–3; see also Heine et al. 1991: 180)

- (a) *eg sigi tadh: hann kemur.*
 I say that he comes
 'I say this: he comes.'
- (b) *eg sigi at hann kemur.*
 I say that he comes
 'I say that he comes.'

See also Traugott 1972 and Hopper and Traugott 1993: 185–9 for the evolution of English *that*, and Harris and Campbell 1995: 287f. on German *das/dass* 'that'. So far, examples of a fully conventionalized grammaticalization have been found mainly in Germanic languages, but according to Lehmann (1982: 64), Welsh *a*, Accadian *ša* (< *šu*), and Nahuatl *in* provide further instances, and there appear to be cases of incipient uses of demonstratives for presenting complement clauses in a number of other languages. Still, more cross-linguistic data are required to establish that the present grammaticalization represents a more general phenomenon. Conceivably, the source of this grammaticalization is not a demonstrative but rather a relative clause marker (Martin Haspelmath, personal communication). Diessel (1999b: 115) points out that the particular pathway a demonstrative takes is crucially determined by the syntactic context in which it occurs:

Pronominal demonstratives develop into grammatical items that are either still used as pronouns (or have at least some of the properties of a pronominal). Adnominal demonstratives give rise to grammatical items that function as operators of nominal constituents. Adverbial demonstratives evolve into operators of verbs or verb phrases. And identificational demonstratives develop into grammatical markers that interact with nominal constituents derived from predicate nominals.

The evidence available suggests that the present pathway is an instance of a pronominal demonstrative (see Diessel 1999b: 123–5).

DEMONSTRATIVE > (2) CONJUNCTION

Discussion of the present process is based on Diessel (1997, 1999a, 1999b: 125–7), who observes that sentence connectives "are frequently formed from a pronominal demonstrative and some other element (e.g., an adverb or adposition) that indicates the semantic relationship between the conjoined propositions" (Diessel 1999b: 125). In Hixkaryana, for example, a combination of the

pronominal demonstrative *ire ke* (DEM because:of) and the causal postposition *ke* serves as a causal link between two propositions ('therefore'; Derbyshire 1985a: 57, 1985b: 157), and in Epena Pedee the most common temporal relator linking propositions is *mapái* 'and', 'so then', consisting of the demonstrative *ma* 'that' and *-pái* 'only' (Harms 1994: 144). Khasi has a set of sentence connectives that are formed from a distal demonstrative and a bound morpheme; in the following example, the two clauses are linked by *naŋta* 'then', which consists of the adpositional marker *naŋ-* and the demonstrative root *-ta*:

Khasi (Diessel 1999b: 126)

| | | | | | | |
|----------|-------------|--------------|-----------|-------------|-------------|-----------|
| <i>u</i> | <i>khla</i> | <i>u</i> | <i>la</i> | <i>ba:m</i> | <i>naŋ-</i> | <i>ta</i> |
| ART | tiger | ART | PAST | ate | PREP- | DEM |
| <i>u</i> | <i>la</i> | <i>thyú.</i> | | | | |
| ART | PAST | slept | | | | |

'The tiger ate and then he slept.'

Furthermore, German has a number of adverbs acting as clause connectives, such as *damit* 'with that' and *darum* 'therefore', which are historically derived from the pronominal demonstrative *das* 'that' plus an adposition (Diessel 1999b: 126). A more detailed treatment of this pathway across genetic and areal boundaries is required.

DEMONSTRATIVE > (3) COPULA

Egyptian *pw* 'this', proximal demonstrative > copula verb. Ex.

Egyptian (Gardiner 1957: 103ff.)

| | | | |
|------------|-----------|-----------|--------------|
| <i>Nwn</i> | <i>pw</i> | <i>jt</i> | <i>nčrw.</i> |
| Nun | this | father | gods |

'The father of the gods is Nun.'

Vai *mε* 'this', demonstrative pronoun > *-mε* 'here is', nominal suffix. Ex.

Vai (Koelle [1854] 1968: 42, 186, 200)

| |
|-------------------|
| <i>sí:na:-mε.</i> |
| seat- here:is |

'Here is a seat.'

In a number of pidgin and creole languages, demonstrative pronouns appear to have given rise to copulas. Nubi CA *dé*, demonstrative/definite article > copula (Boretzky 1988: 73). English *there* > Sranan CE *de(e)*, *dε* 'be (somewhere)', 'exist', existential copula. Ex.

Sranan CE (Boretzky 1983: 158)

| | | | | |
|-------------|------------|-----------|------------|------------|
| <i>taig</i> | <i>mi,</i> | <i>pε</i> | <i>den</i> | <i>dε.</i> |
| (tell | me | where | they | COP) |

'Tell me where they are.'

Sranan CE *da* (< Engl. *that* > *dati*) 'that', 'it', demonstrative/definite article, weak third person pronoun > *da*, *na*, *a* 'it is', equative, qualifying copula. Ex.

Sranan CE (Arends 1986: 107)

| | | | | | |
|-----------|--------------|-----------|------------|-------------|---------------|
| <i>da</i> | <i>somma</i> | <i>da</i> | <i>wan</i> | <i>boen</i> | <i>somma.</i> |
| that | person | is | a | good | person |

‘That’s a good person.’

See also Boretzky (1983: 159).

As these examples suggest, demonstratives in their pronominal uses may give rise to various copular functions, such as existential, identifying, and qualifying functions. The development from resumptive pronoun to copula is described by Li and Thompson (1977); see also Eid 1983; Schuh 1983; Hengeveld 1992; Gildea 1993; Devitt 1994; Stassen 1997: 76–91. Hengeveld (1992: 250) observes that this evolution “goes hand in hand with a reinterpretation of the theme-clause construction as a subject-predicate construction.” Diessel (1999b: 145) argues that nonverbal copulas derived from demonstratives have identificational demonstratives, rather than pronominal demonstratives, as their source. Demonstratives may develop further into personal pronouns, which themselves may give rise to copulas. Thus, we seem to be dealing with a more extensive grammaticalization – DEMONSTRATIVE > PERS-PRON > COPULA – even though the development from identificational demonstrative to copula differs from that leading from personal pronoun to copula, as Diessel (1999b: 145ff.) convincingly argues (contra Li and Thompson 1977). See PERS-PRON, THIRD; see also COPULA > FOCUS.

DEMONSTRATIVE > (4) DEFINITE

English *that*, nonproximal demonstrative > *the*, definite article (Traugott 1980: 49). Bizkaian Basque *a* ‘that’ (< **har* distal demonstrative) > *-a*, definite article. Ex.

Bizkaian Basque (anonymous reader)

- (a) *gizon a*
man that
‘that man’
- (b) *gizona*
gizon-a
man-the
‘the man’

Vai *mɛ* ‘this’, proximal demonstrative > *-mɛ* ‘the’, definite article, nominal suffix. Ex.

Vai (Koelle [1854] 1968: 42, 106, 200)

| | | | | |
|--------------|-------------|-----------|------------|------------|
| <i>án'da</i> | <i>ní-</i> | <i>mɛ</i> | <i>gbí</i> | <i>fa.</i> |
| (3:PL:TAM | bullock-DEF | | all | kill) |

‘They killed all the bullocks.’

Hungarian *az/a* ‘this’, ‘that’, demonstrative > ‘the’, definite article. Ex.

Hungarian (Tompa 1972: 148)

| | | |
|-----------------|-----------------|------------|
| <i>az</i> | <i>idős-ebb</i> | <i>fiú</i> |
| the | old- COMPAR | boy |
| ‘the older boy’ | | |

Many instances of this grammaticalization have been reported from pidgins and creoles; for example, (French *là* ‘there’, locative adverb >) Haitian CF *-la* demonstrative > *-la* (which tends to be reduced to *-a* following vowels), demonstrative/definite article. Ex.

Haitian CF (Sylvain 1936: 55)

| |
|--------------|
| <i>pè-a</i> |
| ‘the priest’ |

Turku PA *da* ‘this’, proximal demonstrative > definite marker (Tosco and Owens 1993: 206–7). Chinook Jargon *úkuk* ‘this’, ‘that’, deictic pronoun > Grand Ronde Chinook Jargon *uk-*, definite article used as an NP-prefix. Ex.

Grand Ronde Chinook Jargon (Grant 1996: 234)

| |
|----------------------|
| <i>uk- háya-haws</i> |
| (this-big- house) |
| ‘the big house’ |

The present pathway constitutes the most frequent way in which definite articles evolve (see, e.g., Krámský 1972; Greenberg 1978; Vogel 1993; Himmelmann 1997; Laurý 1997). Diessel (1999b: 115) points out that the particular pathway a demonstrative takes is crucially determined by the syntactic context in which it occurs:

Pronominal demonstratives develop into grammatical items that are either still used as pronouns (or have at least some of the properties of a pronominal). Adnominal demonstratives give rise to grammatical items that function as operators of nominal constituents. Adverbial demonstratives evolve into operators of verbs or verb phrases. And identificational demonstratives develop into grammatical markers that interact with nominal constituents derived from predicate nominals.

The present process can be assumed to be an instance of an adnominal demonstrative; it is confined to attributive uses of demonstratives; see Greenberg 1978. This grammaticalization can be interpreted as being part of a more general process whereby markers having typically spatial reference are grammaticalized to markers for textual or discourse reference; compare DEMONSTRATIVE > RELATIVE and see also HERE; THERE.

When demonstrative determiners develop into definite markers, plural demonstratives may become markers of definite plural nouns. It seems that in

some languages this development has had the effect that the erstwhile demonstrative determiner becomes the primary means of expressing plurality, at least in contexts where definiteness is not at issue, and, hence, assumes the function of a nominal plural marker (see Frajzyngier 1997a for examples); see also Harris 1980 and Klausenburger 2000.

DEMONSTRATIVE > (5) FOCUS

There is a cross-linguistic grammaticalization chain – DEMONSTRATIVE > PERS-PRON > COPULA > FOCUS (see under the relevant items) – that can be held responsible, with or without an intermediate PERS-PRON stage, for the fact that focus markers can ultimately be traced back to, and may be polysemous with, demonstratives. However, there appears to be an alternative chain according to which the present process does not involve any intermediate stages but rather proceeds straight from what Diessel (1999b: 148–9) calls “identificational demonstratives” to focus markers. Diessel argues that in at least two different languages there is evidence that focus markers may develop straight from identificational demonstratives since the former show no obvious relationship to copulas. Thus, in *Ambulas* the distal demonstrative *wan* is frequently used as a focus marker. Ex.

Ambulas (Wilson 1980: 157; Diessel 1999b: 149)

| | | | | | | |
|-------------|-----------|------------|----------|------------|-------------|---------------|
| <i>véte</i> | <i>dé</i> | <i>wak</i> | <i>a</i> | <i>wan</i> | <i>méné</i> | <i>kaapuk</i> |
| see:and | he | said | ah | FOC | you | not |

yéménén.

you:went

‘He saw him and said, “Ah, so *you* did not go”’

In a similar fashion, Diessel (1999b: 149) argues that the Mokilese focus marker *ioar* can be traced back to an old deictic form that is cognate to a demonstrative identifier in Ponapean, an Oceanic language closely related to Mokilese. Ex.

Mokilese (Harrison 1976: 311; Diessel 1999b: 149)

| | | | | | |
|-------------|---------------|-----------|---------------|-----------|--------------|
| <i>ioar</i> | <i>Wilson</i> | <i>ma</i> | <i>pwehng</i> | <i>ih</i> | <i>mehu.</i> |
| FOC | Wilson | REL | told | him | that |

‘It was Wilson who told him that.’

In *Cahuilla*, the demonstrative *?í* ‘this’ appears to function as a focus (“emphatic”) marker in certain contexts. Ex.

Cahuilla (Seiler 1977: 115–16)

(a) *?í* *nétas*
 this my:uncle
 ‘this my uncle’

(b) *?í* *man* *híwqal* *?ípa?*
 (this ? live here)
 ‘He lives here.’ (lit.: ‘(it is) this and he lives here’)

We appear to be dealing with a process that can often be observed in grammatical evolution, according to which a process $X > Y > Z$ proceeds straight from X to Z ; that is, it may but need not involve an intermediate stage Y .

Conceivably, the present pathway can be held responsible for an additional grammaticalization channel whereby focus markers derived from identificational demonstratives give rise to expletive markers, that is, empty pro-forms, such as French *ce* 'this' plus *être* 'be', serving as matrix predicates in complex sentences (cf. Diessel 1999b: 149–50). Ex.

French

| | | | | | | |
|------------------------------|------------|------------|------------|-----------|-----------|------------|
| <i>C'</i> | <i>est</i> | <i>lui</i> | <i>que</i> | <i>j'</i> | <i>ai</i> | <i>vu.</i> |
| this | is | 3:SG | whom | 1:SG | have | seen |
| 'She is the one that I saw.' | | | | | | |

DEMONSTRATIVE > (6) THIRD PERS-PRON

According to Givón (1984: 353–60), this process is part of a more general grammaticalization chain: DEM PRON > third person PRON > clitic PRON > verb agreement (see also Diessel 1999b: 120).

Casad (1984: 247) observes that in Cora "all third person free pronouns are demonstratives. In the role of pronouns, then, demonstratives show up as subjects, direct objects, and objects of postpositions." Similarly, in Yindjibarndi all of the third person pronouns are also used as demonstratives (Wordick 1982: 71). Latin *ille* 'that', demonstrative (M) > French *il* 'he', third person masculine (M) pronoun. Egyptian *pw* 'this', proximal demonstrative > 'he', 'she', 'it', 'they', third person pronoun. Ex.

Egyptian (Gardiner 1957: 85f., 103)

- (a) \bar{h} -*k3y* *pw*
 magician this
 'this (= thou) magician'
- (b) R^c *pw.* \bar{h} -*wrw* *pw.*
 Re this wretches this
 'This/He is Re.' 'They are wretches.'

Lezgian *a* 'that', demonstrative > *am* (*a* + absolutive) 'he', 'she', 'it', third person singular pronoun. Ex.

Lezgian (Haspelmath 1993: 190; 401)

- (a) *a* *dünja*
 DEM world
 'that world'
- (b) *Gila* *za* *wa-* *z* *aḫtin*
 now I:ERG you- DAT such
alawa *tars* *gu-* *da* *ḫi* *hič*
 additional lesson give- FUT PART PART

| | | | | |
|-----------------|---------------|---------------|------------|-----------|
| <i>sadra-ni</i> | <i>wi</i> | <i>rik'e-</i> | <i>laj</i> | <i>am</i> |
| once- even | you:GEN | heart- | SREL | it |
| <i>alat-</i> | <i>da- ě.</i> | | | |
| fall:off- | FUT-NEG | | | |

'Now I'll give you such a remedial lesson that you'll never forget it.'

Turkish *o*, demonstrative pronoun > pronoun third person singular absolutive (Lewis [1967] 1985: 67–8). In Early Eastern Australian Pidgin English (EAPE) there are sporadic occurrences of *dat* (< English 'that') as a third PERS-PRON pronoun. Ex.

Eastern Australian PE

Dat make all black pellowes get plentybark.

'He made the Aborigines collect a lot of bark.' (Baker 1995: 10)

Sranan CE *da* (< Engl. *that* > *dati*) 'that', demonstrative > 'it', weak third PERS-PRON pronoun (Arends 1986).

Diessel (1999b: 115) points out that the particular pathway a demonstrative takes is crucially determined by the syntactic context in which it occurs:

Pronominal demonstratives develop into grammatical items that are either still used as pronouns (or have at least some of the properties of a pronominal). Adnominal demonstratives give rise to grammatical items that function as operators of nominal constituents. Adverbial demonstratives evolve into operators of verbs or verb phrases. And identificational demonstratives develop into grammatical markers that interact with nominal constituents derived from predicate nominals.

The present process is an instance of a pronominal demonstrative: the process is confined to the use of demonstratives as pronouns. See also Traugott 1980: 48; Heine and Reh 1984: 271; Campbell 1997; Klausenburger 2000.¹⁸

DEMONSTRATIVE > (7) RELATIVE

Canela-Krahô *ita*, demonstrative > relative pronoun. Ex.

Canela-Krahô (Popjes and Popjes 1986: 171)

- (a) *rop ita*
 dog this
 'this dog'

¹⁸ It would seem that Louisiana CF ("Negro-French") provides a counterexample to this grammaticalization. In this creole, the markers *-la*, PL *-je* serve as demonstratives and definite articles (Lane 1935: 10). Now, there is reason to assume that *-je* is historically derived from the French third person plural pronoun *eux* 'they'. If this reconstruction is correct then we would be dealing with a development from personal pronoun (*eux*) to demonstrative (*-je*), hence with a reversal of the unidirectionality principle.

- (b) *i-* *te* *hūmre* *te* *rop* *curan* *ita*
 1- PAST man PAST dog kill DEM
pupun.
 see
 'I saw the man who killed the dog.'

English *that*, demonstrative > relative clause marker. Dogon -gɔ, anaphoric demonstrative > relative pronoun (Calame-Griaule 1968: 108). Baka *kè* 'this' (proximal demonstrative) > relative clause marker. Ex.

Baka (Brisson and Boursier 1979: 137)

- (a) *tò* *peè* *ndó* *kè!*
 give:IMP DAT:1:SG banana this
 'Give me this banana!'
- (b) *bo* *kè* *ma* *mùngi* *lé*
 man REL 1:SG see:PAST 3:SG:OBJ
ngili *nè,* *ʔá* *gɔɛ.*
 yesterday REL 3:SG:NAR go:PAST
 'The man I saw yesterday has left.'

Ik *nà*, PL *nì* 'this', proximal demonstrative > Ik *na*, PL *nì*, relative clause markers. Ex.

Ik (Heine 1983: 97, 110)

- (a) *ceka* *na,* PL *cikámá* *nì*
 woman this women these
 'this woman' 'these women'
- (b) *itél-* *ía* *ima* *ná* *nk'ák^{2a}.*
 see- 1:SG child:NOM REL:SG eat
 'I see a child who is eating.'

Buang *ken*, postposed demonstrative > relativizer. Ex.

Buang (Sankoff 1979: 35–6)

- (a) *Ke* *mdo* *byaŋ* *ken.*
 I live house this
 ('I live in this house.')
- (b) *Ke* *mdo* *byaŋ* *ken* *gu* *le* *vkev.*
 I live house that you saw yesterday
 ('I live in the house that you saw yesterday.')

Diessel (1999b: 115) points out that the particular pathway a demonstrative takes is crucially determined by the syntactic context in which it occurs:

Pronominal demonstratives develop into grammatical items that are either still used as pronouns (or have at least some of the properties of a pronominal). Adnominal demonstratives give rise to grammatical items that function as operators of nominal constituents. Adverbial demonstratives evolve into operators of verbs or verb phrases. And

identificational demonstratives develop into grammatical markers that interact with nominal constituents derived from predicate nominals.

The present process can be assumed to be an instance of a pronominal demonstrative; it constitutes probably the most frequent way in which relative clause markers evolve; see Sankoff and Brown 1976: 645; Downing 1978; Heine and Reh 1984: 271; Frajzyngier 1997a: 204 for details. For pidgin and creole languages, see especially Byrne 1988 and Bruyn 1995. This grammaticalization can be interpreted as being part of a more general process whereby markers having typically spatial reference are grammaticalized to markers for textual or discourse reference; compare DEMONSTRATIVE > DEFINITE; see also HERE; THERE.

DEMONSTRATIVE > (8) SUBORDINATOR

!Xun (northern dialect) *ká-ʔ* (C4-DEM) 'this', proximal demonstrative of noun class 4 > subordinating marker of adverbial clauses. Ex.

!Xun (northern dialect) (Bernd Heine, field notes)

- (a) *g!áún* *ka-ʔ*
 tree C4-DEM
 'this tree'
- (b) *ká-ʔ* *yà* *ke* *tcí- à* *me*
 when C1 PAST come-R 1:SG:PAST
kula *tc'ù.*
 exist:NEG home
 'When he came I was not at home.'

Sango *só* 'this', 'that', demonstrative > marker of temporal and reason clauses. Ex.

Sango (Byrne 1988: 358)

- (a) *yáká* *só* *í* *sára* *só*
 garden that we make that
 'the garden that we made'
- (b) *só* *ndo* *avokó* *awe,* *lo* *goe* *na*
 when place blacken PFV she go with
kóli *só.*
 man that
 'When night comes, she goes with that man.'

Saramaccan CE *dísi* 'this', demonstrative > *dí* 'when', subordinate conjunction, marker of temporal clauses. Ex.

Saramaccan CE (Byrne 1988: 347-8)

- a* *gó* *dí* *a* *bi* *tá* *fefi*
 he go when he TNS ASP paint
dí *wósu.*
 the house
 'He went when he was painting the house.'

Haitian CF *-la* (demonstrative >) definite article > *-(l)a* marker used to nominalize clauses (Hall 1953: 60). Ex.

Haitian CF (Hall 1953: 60)

- (a) *soté lâtouraj- la yo*
 (fence-jumping-DEF PL)
 'the fence-jumpings'
- (b) *pâdâ m- malad- la*
 (during 1:SG-be:sick-DEF)
 'during [the time] I was sick'

This grammaticalization can be interpreted as being part of a more general process whereby markers having typically spatial reference are grammaticalized to markers for textual or discourse reference; compare **DEMONSTRATIVE > RELATIVE**; see also **HERE**; **THERE**.

DEONTIC MODALITY > (1) EPISTEMIC MODALITY

This constitutes a well-researched channel of grammaticalization. English auxiliaries *will*, *must*, *should*, and so on were used for deontic modality before their use was extended to also express epistemic modality (see, e.g., Sweetser 1982; Bybee and Pagliuca 1985; Traugott 1989; Heine et al. 1991; van der Auwera and Plungian 1998). Ex.

English (Bybee et al. 1994: 284)

- (a) *The letter must arrive sometime next week.* (deontic)
 (b) *The letter must be in the mail.* (epistemic)

Our knowledge of this process on languages other than European in general and English in particular is limited. But there is also evidence from non-European languages (see Bybee and Fleischman 1995). For example, the Archaic Chinese item *KE* 'should' was first used for deontic modality before its use was extended to also express epistemic modality (Peyraube 1999: 38).

There are various hypotheses on how this process is to be explained. According to the one perhaps most frequently voiced, the development from deontic to epistemic meanings is suggestive of metaphorical transfer (see, e.g., Sweetser 1982; Bybee and Pagliuca 1985: 73; Heine et al. 1991: 175–8). Sweetser (1990: 52) argues that this development can be accounted for in terms of "sociophysical concepts of forces and barriers," and Traugott (1989) suggests that we are dealing with an instance of subjectification in semantic change (see also Hopper and Traugott 1993: 86). Concerning a treatment of modality as a semantic map, see van der Auwera and Plungian 1998. See also **OBLIGATION > PROBABILITY**; **ABILITY > POSSIBILITY**.

DEONTIC MODALITY > (2) FUTURE

For details on this process, see Traugott 1972: 198–9; Bybee et al. 1991; Bybee et al. 1994; van der Auwera and Plungian 1998; see also **OBLIGATION > FUTURE**.

This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare **BEGIN**; **COME FROM**; **COME TO**; **FINISH**; **GO TO**; **KEEP**; **LEAVE**; **PUT**.

DO ('to do, 'to make') > (3) EMPHASIS

DO-verbs in some languages are used to emphasize the action described by the main verb; compare English *He came* versus *He did come*. South !Xun *dù* 'to do' > auxiliary used to emphasize the verb following it. Ex.

South !Xun (Dickens 1992: 60)

| | | | | | | | | |
|----------|------------|--------------|------------|-------------|-----------|-----------|----------------|------------|
| <i>a</i> | <i>/óá</i> | <i>kxóní</i> | <i>ká.</i> | <i>yáú,</i> | <i>mí</i> | <i>dù</i> | <i>kxóní-á</i> | <i>ká.</i> |
| 2:SG | NEG | fix | it:C4 | hey | 1:SG | do | fix- R | it:C4 |

'You did not fix it.' 'Hey! I *did* fix it.'

Imonda *fe* ('make', 'do') > emphasis marker. Ex.

Imonda (Seiler 1985: 116)

- (a) *bései* *adaia* *fe- f?*
 what work do-PRES
 'What are you doing?'
- (b) *pon* *ka- m* *ha* *fe- f.*
 hunger 1:SG-GOAL affect do-PRES
 'I am hungry.'

For further details on this development, see van der Auwera 1999.

DO ('to do, 'to make') > (4) OBLIGATION

Punjabi *kar* 'do' > marker of strong obligation (Denning 1987: 48). Korean *ya hada* (lit.: 'only:if do') > marker of weak obligation (Denning 1987: 49).

See Denning (1987) for more details. The exact nature of this pathway is still largely unclear, especially since there are no text examples illustrating the process.

DO ('to do, 'to make') > (5) PRO-VERB

Japanese *suru* 'do' > resumptive pro-verb; *ittari kitari suru* 'be coming and going (all the time)' (Matisoff 1991: 432). Lahu *te* 'do', 'make', verb > resumptive pro-verb. Ex.

Lahu (Matisoff 1991: 432)

| | | | | | |
|------------|------------|------------|------------|-----------|------------|
| <i>ǵî-</i> | <i>yàʔ</i> | <i>ǵî-</i> | <i>tâʔ</i> | <i>te</i> | <i>ve.</i> |
| run | descend | run | ascend | do | PART |

'Keep running up and down.'

Hausa *yi* 'do', verb > pro-verb. Ex.

Hausa

- (a) *Yaa* *yi* *aiki.*
 3:M:SG do work
 'He worked.'

- (b) *yaa yi barcii.*
 3:M:SG do sleep
 'He slept.'

Ewe *wɔ* 'do', 'make' > pro-verb after certain nouns. Ex.

Ewe

- (a) *é wɔ dɔ.*
 3:SG do work
 'S/He worked.'
- (b) *é wɔ kpé.*
 3:SG do stone
 'It is stony.'

This grammaticalization has the effect that a frequently used action verb turns into a semantically empty predicate marker. For further details on this development, see van der Auwera 1999. See also **BEAT**.

DUAL > NP-AND

Alyawarra (*athirra* 'two', numeral >) *-athirra*, dual number marker > sociative marker 'with', 'and' (Stolz 1992b: 639–40). Waropen *kisi*, third person dual marker > marker of noun phrase coordination. Ex.

Waropen (Stassen 2000; quoted from Held 1942: 90)

- mangha kisi bingha*
 man 3:DU woman
 'the man and the woman'

West !Xun (*tsa* 'two', cardinal numeral >) *sá*, dual marker > particle conjoining noun phrases. Ex.

West !Xun (Heikkinen 1987: 69)

- sá dǎhmà*
 the:two wife
 'he and his wife'

Kxoe *-tcà*, third person dual suffix > marker of noun phrase coordination involving two participants. Ex.

Kxoe (Treis 2000a: 105)

- (a) *á- tcà*
 DEM- 3:M:DU
 'they (two male referents)'
- (b) *xáò- tcà /'é- tcà*
 hippopotamus-3:M:DU fire-3:M:DU
 'the hippo and the fire'

One of the ways in which markers of noun phrase coordination ('and') may arise is via the grammaticalization of numerals for 'two' to conjoining markers

(see Stassen 2000). It would seem, however, that this evolution may involve an intermediate stage where the numeral assumes the function of a dual marker before developing into a marker of noun phrase coordination, that is, that we are dealing with a more general pathway – TWO > DUAL > NP-AND – even if in some given language the intermediate stage may be skipped. See also TWO > DUAL; TWO > NP-AND.

'Dwell' see LIVE.

E

EAR (body part) > LOCATIVE

Tzotzil *chikin(il)* 'ear' > 'region around the corner', locative marker (de León 1992). Finnish *korva* 'ear', *korvassa* 'in the ear' > 'at (the edge of)', 'toward', locative postposition (Stolz 1992a: 11).

More examples on the genetic and areal distribution of this pathway are required. We are dealing with an instance of a process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; see also BACK; BELLY; BUTTOCKS; EYE; FACE; FLANK; HEART; NECK; SHOULDER.

EARTH ('earth', 'soil', 'land', 'ground') > DOWN

Bulu *si* 'earth', 'land', 'landscape', noun > 'below', 'under', adverb, preposition (Hagen 1914: 296). Kikuyu *thī* 'earth', 'world' (noun class 9/10) > 'down', adverb. Ex.

Kikuyu (Mathias Schladt, personal communication)

(a) *thī* *nī* *nene* *mūno*.
 earth/world is big very
 'The world is very big.'

(b) *ikara* *thī*.
 stay:IMP earth
 'Sit down.'

Kikuyu (*thī* noun class 9/10), *thī ya* (lit.: 'earth of') > *thī ya* 'under', preposition. Ex.

Kikuyu (Barlow 1960: 203)

| | | | | |
|-------------|------------|-----------|--------------|-------------|
| <i>rora</i> | <i>thī</i> | <i>ya</i> | <i>ihiga</i> | <i>rīu!</i> |
| (IMP:look | earth | of | stone | that) |

'Look under that stone!'

Teso *a-kwap* 'land', 'world', 'country' (*a-* = feminine gender prefix) > *kwap ka* (lit.: 'land of') 'under', 'beneath', preposition (Hilders and Lawrance 1958: 3, 31, 44). Hausa *kàsā* 'ground', *kàrkashī* 'lower part' > *kàrkashin* 'under' (Svorou

1994: 81–2). Mano *tá* 'ground', 'earth' > 'under', postposition (Becker-Donner 1965: 19–24). Lingala *nsé* 'earth', 'ground' > *o nsé ya* (LOC ground GEN) 'under', preposition (van Everbroeck 1958: 72, 152). Latvian *zeme* 'earth', 'ground' > *zem* 'under' (Stolz 1992a: 15).

See Heine et al. 1991: Chapter 5 and Svorou 1994 for more details. Bowden (1992: 37) found twenty-four Oceanic languages where terms for 'earth' or 'land' have given rise to DOWN markers. This is an instance of a process whereby a noun, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; compare HOME; SKY.

EAT > PASSIVE

Chinese *CHI* 'eat' > *CHI*, passive marker (Alain Peyraube, personal communication). Kharia *jom* 'eat' > *-jom*, passive suffix (Haspelmath 1990: 41). Juang *jim* 'eat' > *-jim*, passive suffix (Haspelmath 1990: 41). Korean *meg-* 'eat' > passive marker (with adversative and beneficial flavors) (Haspelmath 1990: 41). For more details, see Haspelmath 1990: 41, 64. The conceptual base of this grammaticalization is not entirely clear; more data are required to account for this process, which appears to be an instance of a more general process whereby constructions involving certain process verbs are grammaticalized to passive constructions. See also FALL; GET; SEE.

EDGE (relational noun) > LOCATIVE

Welsh *ymyl* 'edge', 'border' > *yn ymyl* > *yn ymyl* (PREP + 'edge') 'near to', preposition. Ex.

Welsh (*William 1960: 36*)

| | | | |
|-------------------|-------------|------------|---------------|
| <i>yn</i> | <i>ymyl</i> | <i>bae</i> | <i>Colwyn</i> |
| PREP | edge | bay | Colwyn |
| 'near Colwyn Bay' | | | |

Kpelle *da*: 'edge', 'end', noun > 'at', 'in front of', postposition (Westermann 1924: 12). Italian *canto* 'edge', relational noun > *accanto a* 'beside', complex preposition (Lehmann 1985: 304).

This is an instance of a more general process whereby relational nouns give rise to relational (typically spatial or temporal) grammatical markers; see, for example, BOTTOM; BOUNDARY; HOME; SIDE; TOP.

'Emphatic reflexive' see INTENSIVE-REFL

'End' see FINISH

ENVIRONS ('environs', 'vicinity') > AROUND (SPATIAL)

Icelandic (*um*)*hverfi* 'environs', 'neighborhood', **umhverfis* (genitive singular neuter) > *umhverfis* 'around' (Stolz 1991b: 9–10). Lithuanian *aplinkà* 'environs' > *aplink(ui)* 'around' (Stolz 1991b).

More data are required on the genetic and areal distribution of this pathway, which appears to be an instance of a more general process whereby concrete nouns, on account of some salient semantic characteristic, are grammaticalized to markers highlighting that characteristic; compare **BOUNDARY**; **EDGE**; **HOME**; **SIDE**; **TOP**. See also **CIRCLE**.

'Enough, be' see **SUITABLE**

'Evil' see **BAD**

EXCEED ('to exceed', 'to defeat', 'to surpass')

> (1) COMPARATIVE

Duala *buka* 'exceed' > marker of standard noun phrases in comparative constructions, comparative auxiliary. Ex.

Duala (Stassen 1985: 164)

| | | | | | |
|------------|--------------|----------|-------------|-------------|--------------|
| <i>Nin</i> | <i>ndabo</i> | <i>e</i> | <i>kolo</i> | <i>buka</i> | <i>nine.</i> |
| this | house | it | big | exceed | that |

'This house is bigger than that.'

Yabem *-lelec* 'exceed' > marker of standard noun phrases in comparative constructions. Ex.

Yabem (Stassen 1985: 164)

| | | | | |
|--------------|----------------|-----------------|-----------|------------|
| <i>Tamoc</i> | <i>kapoeng</i> | <i>ke-lelec</i> | <i>ae</i> | <i>su.</i> |
| father | is:big | he-exceed | me | ready |

'My father is taller than me.'

Cantonese *KWO* 'surpass' > *KWO* 'than', marker of standard in comparative constructions (Alain Peyraube, personal communication). Thai *kwaa* 'exceed' > marker of standard noun phrases in comparative constructions. Ex.

Thai (Stassen 1985: 165)

| | | | |
|-------------|------------|-------------|--------------|
| <i>Khaw</i> | <i>jaj</i> | <i>kwaa</i> | <i>phom.</i> |
| he | big | exceed | me |

'He is bigger than me.'

Vietnamese *hon* 'exceed' > marker of standard noun phrases in comparative constructions. Ex.

Vietnamese (Stassen 1985: 165)

| | | | |
|-------------|------------|------------|-------------|
| <i>Vang</i> | <i>qui</i> | <i>hon</i> | <i>bac.</i> |
| gold | valuable | exceed | silver |

'Gold is worth more than silver.'

Yoruba *ju* 'exceed' > marker of standard noun phrases in comparative constructions. Ex.

Yoruba (Stassen 1985: 165)

Ile mi kere ju tiwon.
 house my small exceed theirs
 'My house is smaller than theirs.'

Bari *to-tongun* (INF-exceed) 'to exceed' > marker of standard noun phrases in comparative constructions. Ex.

Bari (Stassen 1985: 168)

Körsuk a lokong to- tongun Jökö.
 Körsuk is wise INF-exceed Jökö
 'Körsuk is wiser than Jökö.'

Wolof *gen* 'exceed' > marker of standard noun phrases in comparative constructions. Ex.

Wolof (Stassen 1985: 169)

Sa yai gen na à
 your mother exceed IND SERIAL:MARKER
bakh sa bai.
 is:good:SUBJUNCT your father
 'Your mother is better than your father.'

Igbo *ka* 'exceed' > 'more', comparative marker. Ex.

Igbo (Stassen 1985: 167)

Ge ka m ike.
 you exceed me strength
 'You are stronger than me.'

Margi *mdia* 'exceed' > 'more', comparative marker. Ex.

Margi (Stassen 1985: 167)

Naja ga mdia- da de dzegam-kur.
 he SUBJ exceed-me with tall- NOMIN
 'He is taller than me.'

Banda *dere* 'exceed' > 'more', comparative marker. Ex.

Banda (Stassen 1985: 168)

Anda ne mo dere ne ze de
 house of me exceeds of you with
ayan.
 bigness
 'My house is bigger than your house.'

Fulfulde *buri* 'exceed' > 'more', comparative marker. Ex.

Fulfulde (Stassen 1985: 176)

Samba buri Amadu (i) mawn-de.
 Samba exceed Amadu (with) big- INF
 'Samba is taller than Amadu.'

Swahili *ku-shinda* 'to defeat', 'surpass' > *kushinda* 'more than', comparative marker. Ex.

Swahili

(a) *a- me- ni- shinda.*

3:SG-PERF-1:SG-defeat

'He defeated me.'

(b) *mnazi ni mrefu kushinda mwembe.*
 coconut:tree COP tall to:defeat mango:tree
 'A coconut tree is taller than a mango tree.'

Kikuyu *gũ-kĩra* (INF-exceed) 'to defeat, surpass, exceed', verb > comparative marker of standard. Ex.

Kikuyu (Barlow 1960: 63)

nũkwa wa mũndũ ũ-cio nĩ
 strap of person 3-that COP

mũ-rya gũ- kĩa w-akwa.

3- long INF-defeat 1- my

'That person's strap is longer than mine.' (lit.: 'long, to surpass (or surpassing) mine')

Ewe *wú* 'surpass', 'defeat', verb > 'than', marker of standard noun phrases in comparative constructions. Ex.

Ewe

(a) *é- wú m.*
 3:SG-defeat 1:SG:OBJ
 'He defeated me.'

(b) *néti kó wú detí.*
 coconut:tree be:high defeat oil:palm
 'A coconut tree is taller than an oil palm.' (Claudi and Heine 1986: 305)

Bulu *dañ* 'surpass', 'pass', 'cross' > 'than', marker of standard noun phrases in comparative constructions. Ex.

Bulu (Hagen 1914: 35, 224)

Madu a dañ Obo ñgu(l).
 Madu TAM surpass Obo strength

'Madu is stronger than Obo.'

Gbaya *gán* 'surpass' > 'than', marker of standard noun phrases in comparative constructions. Ex.

Gbaya (Stassen 1985: 164)

Ngma mo gan ó ngay gán nzapa
 some thing NEG is strong surpass God
na.

NEG

'There is nothing stronger than God.'

Vai *bére* 'surpass' > 'than', marker of standard noun phrases in comparative constructions (Koelle [1854] 1968: 112). Susu *dangi* 'surpass' > 'than', marker of standard noun phrases in comparative constructions. Ex.

Susu (Friedländer 1974: 62)

| | | | | | |
|-----------------|-----------|-----------------|--------------|---------------|------------|
| <i>khimbeli</i> | <i>na</i> | <i>Könakiri</i> | <i>dangi</i> | <i>Kankan</i> | <i>na.</i> |
| (humidity | POST | Conakry | surpass | Kankan | POST) |

'Conakry is more humid than Kankan.'

Zande *susa* 'surpass', verb > 'than', marker of standard noun phrases in comparative constructions. Teso *aki-tēlēkarīt* (INF-'surpass') 'surpass' > auxiliary marking standard noun phrases in comparative constructions. Ex.

Teso (Kitching 1915: 25, 120)

| | | |
|----------------------|--------------------|----------------|
| <i>e- ka- kin'ok</i> | <i>e:telekarit</i> | <i>lōkōni.</i> |
| (M-my-dog | 3:SG:surpass | M:your) |

'My dog is bigger than yours.'

This process has been described by Stassen (1985: 42–4) under the label "Exceed-Comparative" and by Heine (1997b: 112–14) under "Action Schema." This is an instance of a process whereby a verb, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; see, for example, FALL; FINISH; PASS.

EXCEED ('to exceed', 'to defeat', 'to surpass')

> (2) ELATIVE¹⁹

Baka *wɔtɔ̀* 'pass', 'go on', 'overtake' (> comparative marker) > 'too much', elative marker. Ex.

Baka (Brisson and Boursier 1979: 486)

- (a) *ʔe* *gɔ̀lɔ̀* *à* *wɔtɔ̀.*
 it:is far ASP pass
 'It is very far.'
- (b) *ʔe* *ko* *dàdì* *à* *wɔtɔ̀.*
 it:is really much ASP pass
 'That is far too much.'

Moré *lōghé* 'to pass', 'surpass', 'exceed' > 'too much' (following the main verb). Ex.

Moré (Alexandre 1953b: 236)

- (a) *dě lōgha m pāga.*
 'This exceeds my strength.'
- (b) *a nyũ ti lōghé.*
 'He has drunk too much.'

¹⁹ This term must not be confused with the use of "elative" in the literature on case marking.

So far, evidence for this instance of grammaticalization comes mostly from the Niger-Congo family. But compare English *exceeding*(ly), Fa d'Ambu CP *pasa* 'surpass' > elative/superlative marker. Ex.

Fa d'Ambu CP (Post 1992: 159)

| | | | | | |
|---|-----------|------------|-------------|------------|-------------|
| <i>tyipa</i> | <i>bi</i> | <i>sxa</i> | <i>dual</i> | <i>eli</i> | <i>kumu</i> |
| stomach | come | PART | hurt | 3:SG | eat |
| <i>pasa.</i> | | | | | |
| surpass | | | | | |
| 'His stomach hurt, he had eaten too much (lit.: 'most').' | | | | | |

While the present pathway appears to be conceptually plausible, more examples are needed. What seems to be involved is that the use of EXCEED verbs without complement may give rise to a superlative or elative interpretation.

EXIST > (1) CONTINUOUS

Kongo *kala* 'to be', 'exist', 'remain', verb > *ka(la)*, progressive aspect marker. Ex.

Kongo (Laman 1912: 159–80; Heine and Reh 1984: 88)

| | | | |
|------------------|-----------|---------------|---------------|
| <i>y-</i> | <i>a-</i> | <i>ka(la)</i> | <i>kanga.</i> |
| (1:SG-PAST-exist | | bind) | |
| 'I was binding.' | | | |

Yagaria *hano* 'exist', 'be' > *no'-ne'*-, progressive aspect marker, prefix (Renck 1975: 90).

Since CONTINUOUS markers may further develop into HABITUAL aspect markers, some EXIST-verbs also express habitual events; for example, Yagaria *hano* 'exist', 'be' > *no'-ne'*-, habitual aspect prefix (Renck 1975: 90). Ghanaian PE *dèy*, locative/existential copula (< English *there*) > progressive/habitual ("nonpunctual") marker. Ex.

Ghanaian PE (Huber 1996; see also Turchetta 1998)

| | | | | | | |
|-------------|-------------|--------------|------------|-------------|------------|-------------|
| <i>so</i> | <i>that</i> | <i>place</i> | <i>wey</i> | <i>rain</i> | <i>dèy</i> | <i>fall</i> |
| (so | that | place | where | rain | PROG | fall |
| <i>they</i> | <i>dèy</i> | <i>come.</i> | | | | |
| they | PROG | come) | | | | |

'So they were coming to where it was raining.'

More research is required on the exact nature and the genetic and areal distribution of this process.

EXIST > (2) H-POSSESSIVE²⁰

Mandarin Chinese *yǒu* 'exist' > *yǒu*, verbal possession marker. Ex.

²⁰ H-POSSESSIVE stands for a marker of predicative possession, typically expressed in English by *have*; see Heine 1997a.

Mandarin Chinese (Li and Thompson 1981: 513)

| | | | | |
|-----------|------------|-------------|-----------|----------------|
| <i>tā</i> | <i>yǒu</i> | <i>sān-</i> | <i>ge</i> | <i>háizi</i> . |
| 3:SG | exist | three-CLASS | | child |

‘S/He has three children.’

North !Xun *gè* ‘exist’ > have-construction. Ex.

North !Xun (Bernd Heine, field notes)

| | | |
|-----------|--------------|-------------|
| <i>mí</i> | <i>#hole</i> | <i>gè</i> . |
| 1:SG | dog | exist |

‘I have a dog.’

The Turkish adjectives *var* ‘existent’ and *yok* ‘nonexistent’ are the ordinary means of expressing the H-POSSESSIVE in this language. Ex.

Turkish (anonymous reader; Lewis [1967] 1985: 142f.)

(a) *köse- de* *bir* *kahve* *var*.
corner-LOC one coffee exist
‘There’s a café on the corner.’

(b) *araba-m* *var*. *araba-m* *yok*.
car- my existent car my nonexistent
‘I have a car.’ ‘I don’t have a car.’

This process has been described by Heine (1997a: 58–9) under the heading “Genitive Schema,” having the propositional structure (‘X’s Y exists’). It requires the possessor to be encoded as a genitival modifier of the subject, which presents the possessee.

Seemingly, this process violates the unidirectionality principle, since there is another instance of grammaticalization exhibiting a reverse directionality: H-POSSESSION > EXIST. As a matter of fact, however, the two are part of a more extensive pathway, which is described by Heine (1997a: 96) in the following way:

| | | | | |
|------------------|---|-------------------|---|-----------------------|
| <i>Existence</i> | > | <i>Possession</i> | > | “Nuclear” existence |
| (Y exists with | | (X has Y) | | (It has Y > Y exists) |
| reference to X) | | | | |

In the present case (i.e., the Genitive Schema) we are dealing with the first part of this pathway, where existence involves two participants, while in the case of “nuclear” existence there is only one participant (see Heine 1997a: 94–6).

‘Exit’ see LEAVE

EYE (body part) > (1) BEFORE

Bambara *nyé* ‘eye’, ‘face’ > *nyé*, *nyé fê* (lit.: “eye at”), temporal postposition. Ex.

Bambara (Raimund Kastholz, personal communication)

| | | | | |
|----------|------------|-----------|-----------|--------------|
| <i>à</i> | <i>nà-</i> | <i>na</i> | <i>né</i> | <i>nyé</i> . |
| 3:SG | come-PAST | | 1:SG:EMPH | before |

‘She arrived before me.’

Conceivably, the present grammaticalization is part of a more extended evolution: (EYE >) FACE > FRONT > BEFORE. This grammaticalization appears to be an instance of a more general process whereby certain body parts, on account of their relative location, are first used as structural templates to express deictic location and then may develop further into expressions for temporal deixis; see also **BACK**; **BELLY**; **FACE**; **HEAD**. While there is only one clear example to support the present grammaticalization, we have nevertheless included it since it is suggestive of a widespread pathway whereby certain concrete nouns are grammaticalized to spatial markers that themselves may further develop into temporal markers. Nouns for 'eye' appear to be a widespread source for 'face'; hence the two belong to one polysemy set in some languages. For various other grammaticalizations of nouns meaning 'eye' or 'face' in the Mixtecan language family, see Hollenbach 1995.

EYE (body part) > (2) FRONT

Halia *mata* 'eye', 'face', 'front' > locative marker FRONT, spatial gram FRONT-REGION (Svorou 1994: 249). Baka *là-*, inalienable noun, *làlà*, alienable noun, 'eye' (also: 'face') > 'in front of', prepositional, 'ahead', 'in front', adverb. Ex.

Baka (Brisson and Boursier 1979: 189)

| | | | | | |
|------|-----------|-----------|---|-----|---------|
| ʔé | gbɔ̃ɛ | wɔ̃- | è | a | là- lè. |
| 3:SG | beat:PAST | woman-his | | LOC | eye-my |

'He beat his wife in front of me.'

Bambara *nyé* 'eye', 'face' > *nyé*, *nyé fê* (lit.: 'eye at'), locative adverb or postposition. Ex.

Bambara (Donald A. Lessau, personal communication)

| | | |
|--------|--------|------|
| (a) ní | fà | nyé |
| 1:SG | father | face |

'my father's face'

Bambara (Kastenholz 1989: 100)

| | | | | | |
|-------|-----|--------|-------|--------|--------------|
| (b) à | bé | tíga | fèere | mìsiri | nyé fê. |
| (3:SG | TAM | peanut | sell | mosque | in:front:of) |

'He sells peanuts in front of the mosque.'

Susu *ya* 'eye' + *-ra*, multipurpose particle > *yara* 'in front of', postposition. Ex.

Susu (Friedländer 1974: 40)

bankhi yara
'in front of the house'

Kpelle *nai* 'eye', 'face' > 'in front of', postposition (Westermann 1924: 12).

This grammaticalization appears to be an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; see also **BACK**; **BELLY**; **BUT-TOCKS**; **FACE**; **HEAD**; **NECK**. For various other grammaticalizations of nouns

meaning ‘eye’ or ‘face’ in the Mixtecan language family, see Hollenbach 1995. While terms for ‘face’ and ‘eye’ appear to be the primary sources for FRONT markers, not uncommonly there are also verbal sources. Bowden (1992: 38) has identified twenty-two Oceanic languages where FRONT markers appear to go back to verbs meaning ‘precede’.

F

FACE (body part) > (1) FRONT

Mixtec *nùù* ‘face’ > ‘top surface’ or ‘front surface’ of a boxlike object (Brugman and Macaulay 1986: 318). Ex.

Mixtec (Brugman and Macaulay 1986: 319)

| | | | |
|------------------------------------|------------------|------------|---------------|
| <i>rùʔù</i> | <i>hindii-ri</i> | <i>nùù</i> | <i>María.</i> |
| I | stand-1:SG | face | Maria |
| ‘I am standing in front of Maria.’ | | | |

Copala Trique *rian* ‘face’ > ‘area in front’. Ex.

Copala Trique (Hollenbach 1995: 174–5)

- (a) *rian*^{3 2} *neʔe*^{3 h} *a*^{3 2}
 face baby DEC
 ‘the baby’s face’
- (b) *rian*^{3 2} *we*^{3 2} *a*^{3 2}
 face house DEC
 ‘the area in front of the house’

Colonial Quiché *vach* ‘face’ > *-vach* ‘in front of’, locative preposition. Ex.

Colonial Quiché (Dürr 1988: 58–9)

| | | | | | | | |
|---|------------|------------|-----------|------------|-------------------|-----------|-------------|
| <i>x-</i> | <i>u-</i> | <i>cat</i> | <i>ri</i> | <i>pom</i> | <i>ch-</i> | <i>u-</i> | <i>vach</i> |
| CPL-3:SG:ERG-heat | | DEF | DEF | incense | LOC-3:SG:ERG-face | | |
| <i>ri</i> | <i>ah.</i> | | | | | | |
| DEF | reed | | | | | | |
| ‘She burned incense in front of the reeds.’ | | | | | | | |

Alamblak *ñiñga-tik* (‘eye’-‘platform’) ‘face’ > ‘front’, positional word confined to animate beings (Bruce 1984: 85; cf. HEAD). || Ani *kx’éi-sì* ‘face’ (‘face’-F) > ‘in front of’, locative postposition (Heine 1999a: 47). Gimira *ap* ‘face’ > *a²pm⁵* (‘face’-case marker) ‘before’, ‘in front of’, postposition (Breeze 1990: 38). Halia *mata* ‘eye’, ‘face’ > FRONT-REGION (Svorou 1994: 77). Vai *dšā* ‘face’, ‘front’ > *dšā ro* (‘face’ + *ro* ‘in’) ‘before’, locative and temporal postposition (Koelle [1854] 1968: 39).

See Svorou 1994: 70–9, 124–43; for various other grammaticalizations of nouns meaning ‘face’ in the Mixtecan language family, see Hollenbach 1995.

Bowden (1992: 36) found forty-nine Oceanic languages where terms for 'face' appear to have given rise to FRONT markers. This grammaticalization has received quite some treatment in the relevant literature; see, for example, Heine et al. 1991; Svorou 1994; Heine 1997b. It appears to be an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; see also **BACK**; **BELLY**; **BUTTOCKS**; **EYE**; **HEAD**; **NECK**; **SHOULDER**. While terms for 'face' and 'eye' appear to be the primary sources for FRONT markers, not uncommonly there are also verbal sources. Bowden (1992: 38) has identified twenty-two Oceanic languages where FRONT markers appear to go back to verbs meaning 'precede'.

FACE (body part) > (2) UP

Nama *ai-s* (*éis* in Krönlein's orthography) 'face', 'blanket' > *ai* (*éi* in Krönlein's orthography) 'on', 'at', postposition. Ex.

Nama (Krönlein 1889: 64)

- (a) *éis* *â-* *tša* // *ā* *ê-* *ts...*
 (face POSS-2:M:SG wash so:that-2:M:SG)
 'Wash your face so that you. . .'
- (b) *tī* /*hawi-* *s* *éi* *‡nā* *re* *nē*
 (my wound- 3:F:SG on pour IMP this
sō/oa- *ba*.
 drug- 3:M:SG)
 'Pour this medicine on my wound.'

Copala Trique *rian* 'face' > 'on top of'. Ex.

Copala Trique (Hollenbach 1995: 174, 179)

- (a) *rian*^{3.2} *ne?*^{3.h} *a*^{3.2}
 face baby DEC
 'the baby's face'
- (b) *oto*^{3.2.h} *lu*³ *rian*^{3.2} *yana*^{3.2} *a*^{3.2}.
 sleeps cat face platform DEC
 'The cat is sleeping on top of the platform.'

Researchers have found 2 out of 125 African languages and 6 out of 104 Oceanic languages to derive a locative marker UP(ON) from a noun meaning 'face' (Heine et al. 1991: 126; Bowden 1992: 36). For various other grammaticalizations of nouns meaning 'face' in the Mixtecan language family, see Hollenbach 1995.

This grammaticalization appears to be an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; see also **BACK**; **BELLY**; **BUTTOCKS**; **EYE**; **HEAD**; **NECK**; **SHOULDER**.

FAIL ('to fail', 'to lack', 'to miss') > AVERTIVE

French *faillir* 'fail', 'sin', 'err' > *failli*, past participle + infinitive > avertive marker 'was on the verge of do-ing but did not do'. Ex.

French (Kuteva 1998: 116, 118)

- a) *Elle* *a* *failli*.
 she have:3:SG:PRES sin/err:PAST:PARTCP
 'She has sinned.' (or 'She has born an illegitimate child.')
- b) *La* *route* *est* *glissante* *et* *j'*
 DEF road be:3:SG:PRES slippery and 1:SG
ai *failli* *tomber*.
 have:PRES fail/sin:PAST:PARTCP fall:INF
 'The road is slippery and I nearly fell.'

Turkish *-yaz-* 'sin', 'err', 'fail', 'miss' > *-yaz-* 'was on the verge of do-ing but did not do', auxiliary. Ex.

Turkish (Kuteva 1998: 116)

- öl-* *e-* *yazdı*.
 die- GER- sin/err/fail/miss:3:SG:PAST
 'He nearly died.'

Tariana *-mayã* 'make mistake', 'forget', 'do', 'get wrong', verb > *-maya*, *-mayã* 'something (negative) almost happened but the agent managed to prevent it', aspect enclitic. Ex.

Tariana (Aikhenvald 1997: 28)

- ha-* *na-* *nuku* *nu-* *hweta-* *mayã*
 this- CL:VERTICAL-TOP 1:SG- fall:CAUS-ALMOST
nhupa- *ka*.
 1:SG:grab- DEC
 'I almost dropped this long one (pen) but managed to grab it.'

French *manquer* 'miss', 'lack' > Haitian CF *mâké* 'almost'. Ex.

Haitian CF (Hall 1953: 55)

- li* *mâké* *fê-* *m* *pèdi* *piti* *mwê*.
 (3:SG miss make-1:SG lose child my)
 'He almost made me lose my child.'

This grammaticalization appears to be an instance of a more general process whereby verbs are grammaticalized to auxiliaries denoting tense, aspect, or modal functions; compare **BEGIN**; **COME FROM**; **COME TO**; **DO**; **FINISH**; **GO TO**; **KEEP**; **LEAVE**; **PUT**. FAIL verbs may also give rise to plain negation markers; see Givón 1979a and also **LACK** > **NEGATION**.

FALL ('to fall (down)') > (1) DOWN

Ijo *kóro* 'to fall' > 'down' (Svorou 1994). Compare Bulu *ɲké* 'flow down (of water)', verb > 'below', 'down', 'eastward', adverb (Hagen 1914: 285).

The evidence for this hypothesis is far from satisfactory, the more so since it is confined to African examples. We have nonetheless included it, first, on account of evidence presented by Svorou (1994), according to whom FALL-verbs may be grammaticalized to spatial grams for DOWN. Second, this would appear to be an instance of a more general process whereby process verbs, on account on some salient semantic property, give rise to grammatical markers highlighting that property; see, for example, DESCEND; EXCEED; FINISH; PASS.

FALL ('to fall (down)') > (2) PASSIVE

Korean *ji-* 'fall' > *-ji* passive suffix; for example, *ggeg-* 'break', *ggegge-ji-* 'be broken' (Haspelmath 1990: 39). Tamil *paṭu* 'fall', 'happen' > *-paṭ* passive suffix (Haspelmath 1990: 39). Tonga *gua* 'fall' > *-igu*, passive suffix (Haspelmath 1990: 39).

This process, proposed by Haspelmath (1990), has not yet been sufficiently described; more research is required on its exact nature and genetic and areal distribution. It appears to be an instance of a more general process whereby constructions involving certain process verbs are grammaticalized to passive constructions; see EAT; GET; SEE; see also DESCEND.

FATHER > MALE

Nouns for 'father' have been grammaticalized in some languages to closed-class categories denoting male participants, typically as adjectival modifiers or derivative affixes. !Xóõ *àa* 'father', noun > 'male', modifier. Ex.

!Xóõ (Güldemann 1999b: 69; quoted from Traill 1994: 154, 174)

| | | | |
|------------|-----------|-------------|-----------|
| <i>tâa</i> | <i>àa</i> | <i>gùmi</i> | <i>àa</i> |
| person | father | cattle | father |
| 'man' | | 'ox' | |

More cross-linguistic data are required to establish this grammaticalization, which appears to be an instance of a more general process whereby human nouns, on account of some salient semantic characteristic, give rise to grammatical markers highlighting that characteristic; see also CHILD; MAN; MOTHER; WOMAN.

FIELD > OUT

Basque *landa* 'field' > 'outside', 'since', 'through' (Stolz 1992a: 15).²¹ Latvian *lauks* 'field' > *laukā* 'outside' (Stolz 1992a: 15). See also Svorou 1994. More

²¹ An anonymous reader of an earlier version of this book noted that the target sense of Basque *landa* "is more commonly 'except for', 'besides', 'in addition to', rather than 'outside', though 'outside' is securely attested, as in *Euskal Herririk landa* 'outside the Basque Country'."

information on the areal and genetic distribution of this process is required. This appears to be an instance of a process whereby a noun, on account of some salient semantic property (in this case, location outside the home), gives rise to a grammatical marker highlighting that property; see, for example, **BACK; EARTH; SKY**.

FINISH ('to finish', 'to complete', 'to end') > (1) AFTER

Turkish *son* 'end' > *sonra* 'after' (Haspelmath 1997b: 65). Nanay *xoži* 'finish', 'end' > *xožiočiania/xožipia* 'after' (Haspelmath 1997b: 65). Indonesian *sudah/telah/habis* 'finished' > *sesudah/setelah/sehabis* 'after' (Haspelmath 1997b: 65).

The exact nature of this process is not entirely clear. Conceivably, it is conceptually related to the (>) FINISH > CONSECUTIVE grammaticalization.

FINISH ('to finish', 'to complete', 'to end') > (2) ALREADY

Burmese *-pi-* 'to finish' > *-pi* 'already' (van Baar 1997: 87). Tongan '*osi* 'to be finished' > 'already', when used as a pre-verb, in particular in combination with the perfect marker *kuo* (van Baar 1997: 87). Arawak *hibi* 'be completed' + subordinating suffix *-n* > *hibi-n* 'already' (van Baar 1997: 87). Vietnamese *rôi* 'to finish'; 'to be idle' > 'already' (van Baar 1997: 87). Swahili *-(kw-)isha* 'finish', 'end' > 'already' in certain contexts. Ex.

Swahili

- (a) *i- me- (kw-)isha.*
C9-PERF-INF-finish
'It is finished.'
- (b) *i- me- (kw-)isha fika.*
C9-PERF-INF-finish arrive
'It has arrived already.'

Portuguese *acabar* 'finish' > Sranan CE *kaba* 'and', 'already', completive marker. Ex.

Sranan CE (Plag 1995: 125)

| | | | | | |
|-----------|---------------|------------|-------------|-------------------|--------------|
| <i>Mi</i> | <i>memree</i> | <i>wie</i> | <i>abie</i> | <i>piekienwan</i> | <i>kaba.</i> |
| I | think | we | have | little:one | already |

'I thought we already had little ones.'

This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare **BEGIN; COME FROM; COME TO; DO; GO TO; KEEP; LEAVE; PUT**.

FINISH ('to finish', 'to complete', 'to end') > (3) COMPLETIVE

Medieval Chinese (eighth–tenth centuries A.D.) *liao* 'to finish', 'to accomplish',²² verb used as V_2 in a series of two verb phrases > *le* completive marker, aspect-

²² According to Sun (1996: 85), *liao* was used mostly in the sense of 'to complete', 'to understand', or 'to be obvious' in Middle Chinese.

ual particle following the main verb (V_1) (Peyraube 1988: 640–5; see also Peyraube 1996: 185–7 and Sun 1996: 82–99). Ex.

Middle Chinese (Jinshu Fuxian zhuan; quoted from Sun 1996: 85)

- | | | | | | |
|------------------|------------|------------|-----------|-------------|------------|
| (a) <i>guan-</i> | <i>shi</i> | <i>wei</i> | <i>yi</i> | <i>liao</i> | <i>ye.</i> |
| official- | matter | NEG | easy | complete | PART |
- 'The government matter is not easy to finish.'

Modern Mandarin Chinese (Sun 1996: 89)

- | | | | | |
|---------------|------------|-----------|------------|------------|
| (b) <i>wo</i> | <i>chi</i> | <i>le</i> | <i>fan</i> | <i>le.</i> |
| I | eat | ASP | food | CRS |
- 'I have eaten.'

Lingala *-sila* 'finish', 'end', verb > egressive auxiliary (Mufwene and Bokamba 1979: 244–6). Yabem *bacnè* 'end, be finished' > terminative auxiliary (coordinate to main verb, inflected only in the third person singular). Ex.

Yabem (Thomas Müller-Bardey, personal communication)

- | | | | | |
|------------|-------------|---------------|------------------|-------------------|
| <i>bôc</i> | <i>seng</i> | <i>aêâcma</i> | <i>janggalom</i> | <i>gê- bacnè.</i> |
| pig | 3:PL:eat | our | corn | 3:SG-be:finished |
- 'The pigs have eaten up our corn.'

Sango *a-we* 'be finished' > *awe*, perfective marker (Thornell 1997: 122). Ex.

Sango (Thornell 1997: 119)

- | | | |
|----------------|-----------------|------------|
| (a) <i>Kua</i> | <i>a-</i> | <i>we.</i> |
| work | AGR-be:finished | |
- 'The work has finished.'
- | | | |
|----------------|----------------|-------------|
| (b) <i>Mbi</i> | <i>fatigué</i> | <i>awe.</i> |
| I | get:tired | PFV |
- 'I am tired.'

Ewe *vɔ* 'end', 'be finished', verb > terminative particle. Ex.

Ewe

- | | |
|---------------|------------|
| (a) <i>é-</i> | <i>vɔ.</i> |
| 3:SG-end | |
- 'It is finished.'
- | | | | |
|---------------|-----------|----------|------------|
| (b) <i>é-</i> | <i>ɔu</i> | <i>i</i> | <i>vɔ.</i> |
| 3:SG-eat | 3:SG:OBJ | CPL | |
- 'He has eaten it up.'

Moré *sa* 'end', 'finish' > 'completely', 'entirely', auxiliary following the main verb (Alexandre 1953b: 334–5). Engenni *dhe* 'finish' > marker of completed action. Ex.

Engenni (Lord 1989: 365)

- | | | | |
|----------|-------------|------------|------------|
| <i>ò</i> | <i>kpei</i> | <i>dhe</i> | <i>me.</i> |
| he | wash | finish | me |
- 'He finished washing me.'

Palauung *hwō̄-i* 'be finished', 'be ready', verb > marker of anterior aspect (Bybee et al. 1994: 72). Rama *atkul* 'finish' > completive marker. Ex.

Rama (Craig 1991: 476)

- (a) *tabulaak* *tkeeruk* *nsu-* *atkul-* *u.*
 evening grave 1:PL- finish- TNS
 'We finished (digging) the grave in the evening.'
- (b) *dor* *y-* *aakang-* *atkul-* *u.*
 door 3- shut- ASP- TNS
 'She shut the door *tight*.'

Baka *mbè* 'finish' (transitive verb) > *mbè* (*tɛ* + verbal noun), marker of completed actions (Brisson and Boursier 1979: 287). Moré *bāsé* 'finish', 'end', verb > 'completely', auxiliary following the main verb (Alexandre 1953b: 25). Bulu *man* 'finish', 'be ready', verb > completive marker, auxiliary (Hagen 1914: 257). Bari *-jo* 'be complete', 'be enough', defective intransitive verb, preceded by the past tense marker *a-* > *-jo*, *-je*, pluperfect markers. Ex.

Bari (Heine and Reh 1984: 127)

nan *a-* *jo* *kɔn.*
 1:SG PAST- PLU do
 'I had done it.'

Spanish *acabar* (*de*) 'finish', 'end', 'complete' > 'completely', auxiliary. Ex.

Spanish (Halm 1971: 160)

No *acab-* *o* *de* *entender-* *lo.*
 (NEG finish-1:SG PREP understand-3:M:SG:OBJ)
 'I don't understand that completely.'

Siroi *sulu-* 'finish' > completive aspect marker, auxiliary. Ex.

Siroi (Wells 1979: 57)

nde- *ke* *sulu-* *wam-* *ngat.*
 go:DOWN-CL finish- INT- 3:SG:FUT
 'It will fall down entirely.'

Many instances of this grammaticalization have been reported from pidgins and creoles; for example, Fa d'Ambu CP *tyama* (cf. Portuguese *terminar*) 'finish' > terminative aspect marker (Post 1992: 161). Fa d'Ambu CP *xaba* (cf. Portuguese *acabar*) 'finish', 'end' > terminative aspect marker (Post 1992: 161). Tok Pisin PE *pinis* 'finish' > completive aspect marker. Portuguese *acabar* 'finish' > Sri Lanka CP *ka*, perfect marker. Ex.

Sri Lanka CP (Stolz 1987a: 296)

E:li *ja:* *fəla:* *e:w* *ja:* *ka:* *fəla:*
 3:SG PAST say 3:SG PAST PERF say

fəla:tu.

say:QUOT

'He said he (had) told (you).'

Negerhollands CD *kabáá* (< Portuguese *acabar*) 'finish', action verb > completive aspect auxiliary. Ex.

Negerhollands CD (Stolz 1986: 185, 186)

| | | | | | | |
|------------|-----------|----------|--------------|------------|-----------|-----------|
| <i>tee</i> | <i>am</i> | <i>a</i> | <i>kabáá</i> | <i>kup</i> | <i>it</i> | <i>de</i> |
| till | 3:SG | PERF | finish | cut | out | DET |

ple

place

'till he had finished clearing the field.'

This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare BEGIN; COME FROM; COME TO; DO; GO TO; KEEP; LEAVE; PUT. Since COMPLETIVE markers may develop further into PAST tense markers (see Bybee et al. 1994), we also find PAST markers being derived from FINISH verbs; for example Ewe *kɔ* 'end', 'have finished' > "Dahome" dialect of Ewe *-kɔ-*, verbal past prefix. Ex.

"Dahome" dialect of Ewe (Westermann 1907: 139-40)

m- kɔ- sa.

1:SG-PAST-sell

'I sold.'

FINISH ('to finish', 'to complete', 'to end') > (4)

CONSECUTIVE

Swahili *i-ki-isha* 'if it is finished' > consecutive marker *kisha* 'then'. Kxoe *tá-xú-nò* (lit.: 'thus-quit/finish-if', 'if it is over like that') > '(and) then', consecutive discourse marker. Ex.

Kxoe (Köhler 1989: 565, 566)

| | | | | |
|-------------------|-----------|---------------|-------------|-----------|
| (a) <i>yà- xú</i> | <i>nò</i> | <i>//áé-m</i> | <i>ó-ká</i> | <i>té</i> |
| come-TERM | if | home-3:M:SG | at | stay |

nò. . .

if

'When you arrive and you are at your residence. . . ?'

| | | | |
|------------------------|------------|-------------|------------|
| (b) <i>taá- xú- nò</i> | <i>cií</i> | <i>//ó-</i> | <i>yi-</i> |
| thus-TERM-if | go:to | lie:down- | PASS- |

ti- hī . . .

FREQ-PAST

'and then they used to go (there) and to sleep. . . ?'

||Ani *tìò khúrí nù* 'then when it is finished' > 'after that', marker introducing a new discourse paragraph. Ex.

||Ani (Heine 1999a: 85f.)

| | | | | | | |
|------------|--------------|---------------|------------|----------|----------|-------------|
| <i>tìò</i> | <i>khúrí</i> | <i>nù</i> | <i>xù-</i> | <i>è</i> | <i>á</i> | <i>xèù-</i> |
| then | finish | when | leave-PASS | DEM | | hippo-F:SG |
| <i>hè</i> | <i>kò</i> | <i>kún-è.</i> | | | | |
| CONV | go- | PASS | | | | |

'Then, when that is over, they leave the hippo and go.'

Portuguese *acabar* 'to finish', 'complete' > Kabuverdiano CP *cabá*, temporal conjunction ('then'). Ex.

Kabuverdiano CP (Stolz 1987a: 296–7)

| | | | | | | |
|--------------|--------------|----------------|-----------|--------------|------------|-----------|
| <i>El</i> | <i>ceñdê</i> | <i>candêr,</i> | <i>el</i> | <i>sentá</i> | <i>pêl</i> | <i>d'</i> |
| 3:SG | light | candle | 3:SG | caress | skin | of |
| <i>cara,</i> | <i>cabá</i> | <i>el</i> | <i>bá</i> | <i>abri.</i> | | |
| face | then | 3:SG | go | open | | |

'She lit a candle, caressed her face and went then to open the door.'

See also Bavin (1983: 160). This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to markers used to structure narrative discourse; compare COME; GO.

FINISH ('to finish', 'to complete', 'to end') > (5) PERFECTIVE

COMPLETIVE markers occasionally give rise to PERFECTIVE aspect markers (Bybee et al. 1994); hence, we also find PERFECTIVE constructions going back to FINISH main verbs. Lhasa *tsháa* 'finish' > perfective marker (Lord 1989: 369). Burmese *pì* 'finish' > perfective auxiliary (Park 1992: 16). Kongo *mana* 'finish' > perfective aspect marker (Laman 1912: 185–6; Heine and Reh 1984: 88). Mandarin Chinese *liǎo* 'to finish' > *le*, perfective marker (Bybee and Dahl 1989: 58; Hågège 1993: 213).

This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare BEGIN; COME FROM; COME TO; DO; GO TO; KEEP; LEAVE; PUT.

FIRST (TEMPORAL) > BEFORE

Italian *primo* 'first' > *prima* 'at first', 'earlier' > *prima di* 'before' (Haspelmath 1997b: 63). Punjabi **prathila-*, a suffix variant of Old Indic *prathama-* 'first' > Punjabi *páilāā* 'before' (Haspelmath 1997b: 63). Latvian *pirmis* (an adverbial form based on *pirmais* 'first') > *pirms* 'before', 'earlier' (Haspelmath 1997b: 63). Kannada *modalu* 'first' > *modalu* 'before' (Haspelmath 1997b: 63). Compare Basque *lehen* 'first', which occurs in constructions such as the following:

Basque (anonymous reader)

| | | | | |
|--------------|-----------|-------------|--------------|---------------------|
| <i>etxe-</i> | <i>ra</i> | <i>joan</i> | <i>baino</i> | <i>lehen</i> |
| house- | ALL | go | than | first |
| | | | | 'before going home' |

This hypothesis (see Haspelmath 1997b) does not appear to be well established; conceptually it would seem equally plausible that there is also a reverse directionality. More research is required on this issue.

‘Fitting, be’ see **SUITABLE**

FLANK (body part) > SIDE (SPATIAL)

||Ani *gám-si* ‘flank’ (flank-F), noun > ‘beside’, locative postposition (Heine 1999a: 47). Abkhaz *àvara* ‘flank, side’ > *a-vara* ‘beside’ (Svorou 1994: 72). Tzotzil *xokon* ‘flank’ > ‘side’, locative marker (de León 1992: 577).

It would seem that this grammaticalization starts out with a body part noun (‘flank’) that acquires the additional meaning ‘side’. Subsequently, the noun may grammaticalize into an adverbial (e.g., ‘aside’) or an adpositional item (‘beside’; cf. Svorou 1994: 72). This grammaticalization appears to be an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; see also **BACK; BELLY; BUTTOCKS; EYE; FACE; HEAD; NECK; SHOULDER.**

FOLLOW > (1) ACCORDING TO

Latin *sēqui* ‘follow’, *sēcundus* ‘following’ (gerund, de-verbal adjective) > preposition *sēcundum* ‘along’, ‘(immediately) after’, ‘according to’, ‘for (the benefit of)’ (Kühner and Holzweissig [1912] 1966: 935). Swahili *ku-fuatana na* ‘to follow each other’ > *kufuatana na* ‘following’, ‘according to’.

More research is required on the exact nature and the genetic and areal distribution of this process. Nevertheless, it appears to be an instance of a process whereby process verbs, on account of some salient semantic property, give rise to grammatical markers expressing case relations; compare **COME FROM; GIVE; GO TO; LEAVE; SEE; TAKE.**

FOLLOW > (2) BEHIND

Albanian *pasón* ‘follow’, verb of action > *pas* ‘behind’, locative adverb and preposition. Ex.

Albanian (Buchholz et al. 1993: 391–2)

nga pas
‘from behind’

Bowden (1992: 38) found seven Oceanic languages where verbs for ‘follow’ have given rise to **BEHIND** markers. This is an instance of a pathway whereby process verbs, on account of some salient semantic property, give rise to locative markers; compare **ARRIVE; CROSS; DESCEND.**

FOLLOW > (3) COMITATIVE

Ainu *tura* ‘follow’ > *-tura*, comitative case marker with animate nouns (Kilian-Hatz and Stolz 1992: 7). Mandarin Chinese *gen* (or *gēn*) ‘follow’, verb > ‘with’,

preposition (Hagège 1993: 204; Peyraube 1996: 191). The first instances of *gen* as a comitative preposition are attested in the eighteenth century, and its further development into a conjunction started in the nineteenth century (Peyraube 1996: 191). Hagège (1993: 204) notes that at present this item has in 8 percent of its occurrences the lexical meaning 'follow', while the grammatical uses account for 92 percent of its appearances.

Conceivably, the development of the Chinese verb *tong* can be related to this general process. In Archaic Chinese *tong* meant 'to be the same as' and later 'to share with' and 'to accompany'. Probably during the Tang period, *tong* was grammaticalized to a comitative preposition. Ex.

Tang period Chinese (Han Shan shi; quoted from Peyraube 1996: 191)

| | | | | |
|------------|------------|-------------|-----------|-------------|
| <i>bai</i> | <i>yun</i> | <i>tong</i> | <i>he</i> | <i>fei.</i> |
| white | cloud | with | crane | fly |

'White clouds are flying away (together) with the crane.'

In Contemporary Chinese (i.e., from the nineteenth century onward), *tong* began to function as a coordinating conjunction (Peyraube 1996: 190–1).

This is an instance of a process whereby process verbs, on account of some salient semantic property, give rise to grammatical markers expressing case relations; compare COME FROM; GIVE; GO TO; LEAVE; SEE; TAKE. See also COMITATIVE > NP-AND.

FOOT > DOWN

Silacayoapan *sàʔà* 'foot' > 'bottom of'. Ex.

Silacayoapan (Hollenbach 1995: 178; quoted from Shields 1988: 317)

| | | | |
|----------------|-----------|-------------|--------------|
| <i>kándúʔù</i> | <i>nà</i> | <i>sàʔà</i> | <i>yítò.</i> |
| are:lying | they | foot | tree |

'They are lying [at] the base of the tree.'

Kisi *bèŋgú* 'foot', 'leg', noun > 'under', postposition. Ex.

Kisi (Childs 1995: 130)

| | | | | | |
|----------|-----------|----------------|----------|--------------|---------------|
| <i>ò</i> | <i>wá</i> | <i>kùŋndáj</i> | <i>ó</i> | <i>bɔ́ɔ́</i> | <i>bèŋgú.</i> |
| he | AUX | groan | to | bush | foot |

'He was groaning under the bushes.'

See Hagège 1993: 214 and Heine et al. 1991: Chapter 5 for more examples. For various other grammaticalizations of nouns meaning 'foot' in the Mixtecan language family, see Hollenbach 1995. Bowden (1992: 36) found ten Oceanic languages where terms for 'feet' or 'legs' have given rise to DOWN markers. This grammaticalization appears to be an instance of a more general process whereby certain body parts, on account of their relative position, are used as structural templates to express deictic location; see also BACK; BELLY; BUT-TOCKS; EYE; FACE; FLANK; HEAD; NECK.

FOOTPRINT > BEHIND

Gimira *ya²par³* ‘footprint’ > *ya²pa³rn³* (‘footprint’-case marker) ‘after’, ‘behind’, postposition (Breeze 1990: 38). Zande *fuo* ‘footprint’, ‘trace’ > *fuo* ‘after’, preposition. Ex.

Zande (Canon and Gore [1931] 1952: 38)

- (a) *Fuo bahū du erē.*
 ‘A lion’s footprints are here.’
 (b) *Mi nandu fuo ko.*
 ‘I am going after him.’

While this appears to be a conceptually appealing process, examples have so far been found only in African languages. Nevertheless, this appears to be an instance of a process whereby a noun, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; see also **BACK; EARTH; SKY; TRACE.**

FOREHEAD > FRONT

Dullay *miinté* (*míinaté*, locative genitive) ‘forehead’ > *míinacé* ‘in front of’, postposition. Ex.

Dullay (Amborn et al. 1980: 102)

| | | | |
|---------------|--------------|----------------|-----------------|
| <i>payisa</i> | <i>yéela</i> | <i>míinacé</i> | <i>ákkád’í.</i> |
| Payisa | 1:SG:LOC | in:front:of | sits |

‘Payisa sits in front of me.’

Bulu *asu* ‘forehead’, ‘front’, noun > *ósu* ‘ahead’, locative adverb (Hagen 1914: 215, 291). There are only two African language phyla where this process has been documented. Nevertheless, it appears to be an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; see also **BACK; BELLY; BREAST; BUTTOCKS; EYE; FACE; FLANK; HEAD; NECK.**

‘From’ see **ABLATIVE**

FRONT > (1) BEFORE

Bulgarian *pred* ‘in front’ > *predi* ‘before’ (Haspelmath 1997b: 61). Turkish *ön* ‘front’ + *ce*, adverbial suffix > *önce*, “sequential adposition” (Haspelmath 1997b: 61). Mandarin Chinese *qiánbian* ‘in front’ > *qián*, sequential adposition (Haspelmath 1997b: 61). Lingala (*li*)*bosó* ‘in front’, ‘ahead’, noun, adverb > ‘earlier’, ‘formerly’, adverb (van Everbroeck 1958: 71, 75). Kwaio *na’o-na* ‘in front of’ > ‘before’. Ex.

Kwaio (Keesing 1991: 335)

- (a) *na’o-na ’ifi*
 ‘in front of the house’

- (b) *na'o-na omea*
 'before the mortuary feast'

Compare Chinese *qian* 'front' > 'earlier'. Ex.

Chinese (Alain Peyraube, personal communication)

| | | |
|-------------|------------|-------------|
| <i>qian</i> | <i>san</i> | <i>nian</i> |
| front | three | year |

'the last three years'

See Haspelmath 1997b for further information on this development. This grammaticalization appears to be an instance of a more general process whereby spatial concepts are used to also express temporal concepts; see, for example, ABLATIVE; ALLATIVE; BEHIND; IN; LOCATIVE.

FRONT > (2) LATER

Shona *mberi* 'front', noun of noun class 8 > 'ahead', time adverb. Ex.

Shona (Hannan 1987: 339)

| | | | |
|-----------------|---------------|---------------|------------|
| <i>zvi- uya</i> | <i>zvi-ri</i> | <i>mberi-</i> | <i>yo.</i> |
| (c8-excellent | c8- be | front- | DEM) |

'Good things are ahead.'

Moré *béōghé* 'go ahead', 'be in front' > *béōgho* 'tomorrow', 'the following day' (Alexandre 1953b: 36f.). More research is required on the exact nature and the genetic and areal distribution of this process. Nevertheless, it appears to be an instance of a more general process whereby spatial concepts are used to also express temporal concepts; compare ABLATIVE; ALLATIVE; BEHIND; IN; INTERIOR; LOCATIVE.

FUTURE > EPISTEMIC MODALITY

English *will*, future tense marker > marker of epistemic modality in certain contexts that rule out a future meaning. Ex.

English (anonymous reader)

- (a) *Susie will be at the party (tomorrow).*
 (b) *That will be Susie.* (on hearing the doorbell)

German *werden* (+ infinitive), future tense marker > marker of epistemic modality. Ex.

German

- | | | | |
|----------------|-------------|-------------|----------------|
| (a) <i>Sie</i> | <i>wird</i> | <i>bald</i> | <i>kommen.</i> |
| she | will | soon | come |
- 'She will come soon.'
- | | | | | | |
|----------------|-------------|--------------|-----------|--------------|--------------|
| (b) <i>Sie</i> | <i>wird</i> | <i>jetzt</i> | <i>zu</i> | <i>Hause</i> | <i>sein.</i> |
| she | will | now | at | home | be |
- 'She will be at home by now.'

Bulgarian *šte*, future marker > marker of epistemic modality. Ex.

Bulgarian

- (a) *Konferencijata šte se sǎstoi v*
 conference:DEF FUT REFL take:place in

Berlin.

Berlin

'The conference will take place in Berlin.'

- (b) *Tja šte e pri prijatelja si*
 she FUT be:3:SG:PRES at boyfriend REFL
po tova vreme.
 at this time

'She will be at her boyfriend's place at this time.'

Swahili *-ta-*, future tense prefix > marker of epistemic modality. Ex.

Swahili

- (a) *A-ta-ku-ja.*
 CI-FUT-INF-COME
 'He will come.'

- (b) *A-ta-ku-wa nyumba-ni sasa.*
 CI-FUT-INF-be house- LOC now
 'He will be at home by now.'

For other languages expressing future and epistemic modality (possibility, probability) by means of the same marker, see Bybee et al. 1994: 205ff., 347–8; a more detailed treatment on Greek can also be found in Tsangalidis 1999. Concerning a treatment of modality as a semantic map, see van der Auwera and Plungian 1998.

G

GET ('to get', 'to receive', 'to obtain') > (1) ABILITY

Burmese *rá* 'get' > 'be able to', 'manage to', auxiliary (Park 1992: 16). English *get to* > 'manage to', 'be permitted to'; *I get to sit on Santa's lap* (Bybee et al. 1994: 191). Khmer *baan* 'get' > marker of ability. Ex.

Khmer (Matisoff 1991: 425–6)

- (a) *look cɔŋ baan chəə-kuh tee?*
 2:SG want get matches Q

'Do you want to get some matches?'

- (b) *kñom sdap baan.*
 (1:SG ? get)

'I can understand.'

Lahu *gä* 'get', 'obtain' > 'to manage to complete an act' (Bybee et al. 1994: 191).
 Vietnamese *đ'ư'c* 'receive' > 'can', 'be able', modal particle. Ex.

*Vietnamese (Kuhn 1990: 9)*²³

- (a) *sáng* *nay* *chị* *to:i* *đ'ư'c* *tho'.*
 morning this sister 1:SG receive letter
 'This morning, my (elder) sister received a letter.'
- (b) *to:i* *bá't* *hai* *con* *cá* *đ'ư'c.*
 1:SG catch two CLASS fish receive
 'I am able to/can catch two fish.'

Archaic Chinese (tenth–second centuries B.C.) *de* 'to obtain', verb > Early Medieval Chinese (second–sixth centuries A.D.) *de*, marker of ability or possibility (Peyraube 1996: 194, 1999; Sun 1996: 112ff.). Ex.

Old Chinese (300 B.C.; Shijing Guangsui; quoted from Sun 1996: 112)

- (a) *qiu* *zhi* *bu* *de.*
 want her NEG obtain
 '(The lord) wished (for) her, (but) did not get (her).'

Middle Chinese (tenth century A.D.; Zutangji 5/98/7; quoted from Sun 1996: 121)

- (b) *hai* *jie* *pan* *de* *xu-kong* *bu?*
 still explain judge possible empty NEG
 'Can (you) still tell what emptiness is?'

Réunion CF *gay* 'to get', verb (< French *gagner* 'gain') > 'to be able'. Ex.

Réunion CF (Corne 1977: 166)

- m* *i* *gay* *lir.*
 (1:SG CPL get read)
 'I can (am physically able to) read.'

Since ABILITY markers may give rise to PERMISSIVE and POSSIBILITY uses (see ABILITY), GET-verbs can also acquire these meanings (see Bybee et al. 1994 for details).

GET ('to get', 'to receive', 'to obtain') > (2)

CHANGE-OF-STATE

English *get drunk*, *get rich*. Rodrigues CF *gañ* 'get' > marker of change-of-state in examples such as the following:

Rodrigues CF (Corne 1977: 165; Papen 1978: 440)

- (a) *mo* *fin* *gañ* *sa* *avek* *li.*
 (1:SG CPL get it with 3:SG)
 'I got it from him.'

²³ Note that the orthography used for Vietnamese in Kuhn 1990 differs from that of Haspelmath 1990.

- (b) *kâ* *kan* *gañ* *gro*, *nu* *kup* *li*.
 (when cane get big 1:PL cut 3:SG)
 'When the cane gets (to be) big, we cut it.'

See also Anderson 1975. This process appears to be associated primarily with contexts where GET has adjectives and related words as complements.

GET ('to get', 'to receive', 'to obtain') > (3) OBLIGATION

English *have got to*; *I've got to study tonight* (Bybee et al. 1994: 184). Lahu *gä* 'get', 'obtain', 'catch' > obligation construction (Bybee et al. 1994: 183). Archaic Chinese (tenth–second centuries B.C.) *de* 'to obtain', verb > Modern Mandarin Chinese *dei* 'should'. Ex.

Old Chinese (300 B.C.; Shijing Guangsui; quoted from Sun 1996: 112)

- (a) *qiu* *zhi* *bu* *de*.
 want her NEG obtain
 '(The lord) wished (for) her, (but) did not get (her).'

Modern Mandarin Chinese (Sun 1996: 160)

- (b) *hai* *dei* *chi* *rou*.
 still should eat meat
 '(One) still has to eat meat.'

Mandarin Chinese *dě* 'get', 'obtain', 'take' > marker of strong obligation (Denning 1987: 48; the strong obligation meaning is recent and geographically restricted).

This is an instance of a pathway whereby process verbs give rise to markers for tense, aspect, and modality; compare BEGIN; COME FROM; COME TO; DO; FINISH; GO TO; KEEP; LEAVE; PUT.

GET ('to get', 'to receive', 'to obtain') > (4) PASSIVE

Vietnamese *đu'q'* 'receive' > passive marker (Haspelmath 1990: 41).²⁴ Korean *bad-* 'receive' > passive marker (with adversative and beneficial flavors) (Haspelmath 1990: 41). Warring States period Chinese *bei* 'to receive', 'to suffer', 'to be affected'²⁵ > Early Medieval Chinese (second–sixth centuries A.D.) *bei*, passive marker.²⁶ Ex.

Old Chinese (Shiji; quoted from Sun 1996: 63)

- (a) *bei* *shui* *han* *zhi* *hai*.
 receive water cold REL damage
 'Receive damage from flood and cold.'

²⁴ Note that the orthography used for Vietnamese in Haspelmath 1990 differs from that of Kuhn 1990.

²⁵ Originally, *bei* was a noun meaning 'blanket'. It later turned into a verb meaning 'to cover', 'to wear' before acquiring the meanings 'to receive', 'to suffer', 'to be affected' (Peyraube 1996: 176).

²⁶ The first Chinese passive constructions using *bei* did not involve agents (Alain Peyraube 1989 and personal communication).

Early Medieval Chinese (Shi shuo xin yu: fang zheng; quoted from Peyraube 1996: 176)

- (b) *Liangzi bei Su Jun hai.*
 Liangzi BEI Su Jun kill
 'Liangzi was killed by Sun Jun.'

Old Chinese *de* 'to obtain', verb > Middle Chinese *de*, passive marker. Ex.

Old Chinese (300 B.C.; Shijing Guangsui; quoted from Sun 1996: 112)

- (a) *qiu zhi bu de.*
 want her NEG obtain
 '(The lord) wished (for) her, (but) did not get (her).'

Middle Chinese (Shiji Zhang Shezhi zhuan; quoted from Sun 1996: 118)²⁷

- (b) *qihou you ren dao gaomiao qian*
 later have man steal high:temple front
yuhuan bu- de.
 jade:ring catch-obtain
 'Later there was (a) man stealing the jade ring in front of the high temple and was caught.'

For a detailed reconstruction of this process from Early Archaic Chinese to the present, see Peyraube 1989a. German *kriegen, bekommen, erhalten* 'get', 'receive', verb > marker of the dative passive ("Dativpassiv," "Adressatenpassiv," "Rezipientenpassiv," "indirektes Passiv"; Helbig and Buscha 1986: 184). Ex.

Colloquial German (Lehmann 1991: 517)

- Sie kriegte den Wagen repariert.*
 she got the car repaired
 'She got the car repaired.'

Welsh *cael* 'get', 'earn', 'win', 'find', verb > passive auxiliary. Ex.

Welsh (Haspelmath 1990: 42)

- Cafodd y bachgen ei rybuddio gan*
 got the boy his warning by
y dyn.
 the man
 'The boy was warned by the man.'

Rodrigues CF *gay* 'get', verb (< French *gagner* 'gain') > passive marker. Ex.

Rodrigues CF (Corne 1977: 164–5)

- (a) *mo fin gay sa avek li.*
 (1:SG CPL get it with 3:SG)
 'I got it from him.'

²⁷ Alain Peyraube (personal communication) doubts whether this is really an example of a process from *DE* 'to obtain' to passive marker.

- (b) *lisiē* *i* *gaȳ* *morde* *ek* *pis*.
 (dog 3:SG get bite with flea)
 'Dogs get bitten by fleas.'

Seychelles CF (Seselwa) *gaȳ* 'get' > passive marker. Ex.

Seychelles CF (Haspelmath 1990: 42)

| | | | | | | |
|----------------|-----------|-----------|-------------|--------------|-----------|-----------|
| <i>zot</i> | <i>pa</i> | <i>ti</i> | <i>gaȳ</i> | <i>ēvite</i> | <i>dā</i> | <i>sa</i> |
| they | not | PAST | PASS | invite | in | that |
| <i>festē</i> . | | | | | | |
| party | | | | | | |

'They did not get invited to that party.'

See Corne 1977: 159–68 for a discussion of *gaȳ*-passives in Indian Ocean creoles. Conceivably, this grammaticalization is related to another pathway, namely (>) SUFFER > PASSIVE. This process appears to be an instance of a more general process whereby constructions involving certain process verbs are grammaticalized to passive constructions; see EAT; FALL; SEE.

GET ('to get', 'to receive', 'to obtain') > (5) PAST

Khmer *baan* 'get' > past tense/'already' marker. Ex.

Khmer (Haiman 1999: 156)

| | | | | | |
|--------------------------------------|-------------|------------|-----------------|-------------|-------------|
| <i>haəj</i> | <i>baan</i> | <i>haw</i> | <i>Thombaal</i> | <i>mɔɔk</i> | <i>cuəp</i> |
| and | PAST | call | Thombaal | come | meet |
| 'and summoned Thombaal to a meeting' | | | | | |

Hmong *tau* 'get', 'receive' > past tense marker (Bisang 1996: 569). Thai *dāj* 'get', 'receive' > past tense marker (Bisang 1996: 570). In Twi, the verb *nyā* 'get', 'receive', 'obtain', when used as an auxiliary, may indicate "that the action has already taken place" (Lord 1993: 218–19).

The evidence supporting this process is far from satisfactory, and we may be dealing with a genetically and/or areally defined phenomenon. Still, this grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare BEGIN; COME FROM; COME TO; DO; FINISH; GO TO; KEEP; LEAVE; PUT.

GET ('to get', 'to receive', 'to obtain') > (6) PERMISSIVE

Since ABILITY markers may give rise to PERMISSIVE and POSSIBILITY uses (see ABILITY), GET-verbs, after having developed into ABILITY markers, can also acquire these meanings (see Bybee et al. 1994 for details). English *get to* > 'manage to', 'be permitted to'. Early Archaic Chinese (tenth–second centuries B.C.) *de* 'to obtain (something after making an effort)', verb > Late Archaic Chinese *de*, marker of permission. Early Archaic Chinese *huo* 'to obtain (something after making an effort)', verb > Late Archaic Chinese *huo*, marker of

permission (Peyraube 1999). This is an instance of a more general pathway whereby process verbs give rise to markers of tense, aspect, and modality; compare **BEGIN**; **COME FROM**; **COME TO**; **DO**; **FINISH**; **GET > POSSIBILITY**; **GO TO**; **KEEP**; **LEAVE**; **PUT**. See also **ABILITY**.

GET ('to get', 'to receive', 'to obtain') > (7) H-POSSESSIVE

Old Chinese *de* 'to obtain', verb > Middle Chinese *de* 'have'.²⁸ Ex.

Old Chinese (300 B.C.; Shijing Guangsui; quoted from Sun 1996: 112)

- (a) *qiu zhi bu de.*
 want her NEG obtain
 '(The lord) wished (for) her, (but) did not get (her).'

Tenth century Chinese (Zutangji 1/74; quoted from Sun 1996: 122)

- (b) *yi ren de wo rou.*
 one person obtain I flesh
 'One (of them) has my flesh.'

In many French-based creoles, the French verb *gagner* 'to gain', 'to win' has acquired uses like 'to obtain', 'to get', and this verb has been grammaticalized to a marker of predicative possession, for example, Haitian CF *gê(gnê)* 'to have'. Ex.

Haitian CF (Hall 1953: 31)

- mwê pa- gê plis.*
 (1:SG NEG-have more)
 'I have no more.'

See also Anderson 1975. More research is required on the exact nature and the genetic and areal distribution of this process. This is an instance of a pathway whereby process verbs, on account of some salient semantic property (in this case, implied possession), give rise to grammatical markers.

GET ('to get', 'to receive', 'to obtain') > (8) POSSIBILITY

Since **ABILITY** markers may give rise to **PERMISSIVE** and **POSSIBILITY** uses (see **ABILITY**), **GET**-verbs can also acquire these meanings (see Bybee et al. 1994 for details). Archaic Chinese (tenth–second centuries B.C.) *de* 'to obtain', verb > Early Medieval Chinese (second–sixth centuries A.D.) *de*, marker of ability or possibility (Peyraube 1996: 194, 1999; Sun 1996: 112–14). Early Archaic Chinese *huo* 'to obtain (something after making an effort)', verb > Late Archaic Chinese *huo*, auxiliary verb expressing possibility (Peyraube 1999).

This is an instance of a more general pathway whereby process verbs give rise to markers of tense, aspect, and modality; compare **BEGIN**; **COME FROM**;

²⁸ Among the various grammaticalization processes that the verb *de* underwent in the history of Chinese (see Sun 1996: 108–62), the present one constitutes only a minor, less common pattern.

COME TO; DO; FINISH; GET > OBLIGATION; GET > PERMISSIVE; GO TO; KEEP; LEAVE; PUT. See also ABILITY.

GET ('to get', 'to receive', 'to obtain') > (9) SUCCEED

German *kriegen* 'to get' > 'manage to do'. Ex.

German

(a) *Er kriegt einen neuen Computer.*
 he gets a new computer
 'He gets a new computer.'

(b) *Er kriegt das nicht geregelt.*
 he gets that not settled
 'He doesn't get that settled.'

Mauritius CF *gañ* 'get' > 'succeed doing'. Ex.

Mauritius CF (Papen 1978: 480)

| | | | | | |
|---------------|-----------------|------------|-----------|------------|-------------|
| <i>A-fors</i> | <i>reflesi,</i> | <i>mué</i> | <i>la</i> | <i>gañ</i> | <i>fer.</i> |
| (by:dint | try | 1:SG | PAST | get | do) |

'By dint of trying I succeeded in doing it.'

More research on the nature and genetic and areal distribution of this process is required.

GIVE > (1) BENEFACTIVE

Cahuilla *-máx-* 'to give', verb root > *-max-*, benefactive affix (Seiler 1977: 151).

Thai *hâj* 'give', verb > 'to', 'for', co-verb. Ex.

Thai (Bisang 1998b: 771)

| | | | | | |
|-------------|-------------|-------------|------------|--------------|------------|
| <i>Dɛɛŋ</i> | <i>sǒɔn</i> | <i>lêeg</i> | <i>hâj</i> | <i>Sùdaa</i> | <i>hâj</i> |
| Dang | teach | arithmetic | give | Suda | give |

phýan.
 friend

'Dang taught arithmetic to Suda for his friend.'

Proto-Oceanic **pa(nñ)i* 'give' > To'aba'ita *fana* 'to', 'for', benefactive preposition (Lichtenberk 1991b: 59–60). Awtuw *kow* 'give' > *kow*, benefactive marker (Feldman 1986: 76–7). Southern Senufo languages; for example, Jimini *kan* 'give' > benefactive marker (Carlson 1991: 214). Twi *a* 'give' > benefactive marker. Awutu *na* 'give', verb > benefactive marker (Lord 1993: 39). Efik *nò* 'give' > benefactive preposition. Ex.

Efik (Welmers 1968: 68–9)

| | | | |
|------------|-------------|-----------|-------------|
| <i>yét</i> | <i>ùsan</i> | <i>nò</i> | <i>èyè!</i> |
| (wash | dish | give | him) |

'Wash the dishes for him!'

Ijo (Kolokuma dialect) *-pírí* 'give', verb > benefactive postposition (Williamson 1965: 35). Zande *fu* 'give', verb > *fu*, benefactive preposition (Canon and Gore

1926: 37). Sranan CE *gi* 'give' > benefactive case marker (Lord 1989: 105). Saramaccan CE *dá* 'give' > benefactive, dative marker (Lord 1989: 106). Tagbana *kan* 'give' > benefactive marker. Ex.

Tagbana (Carlson 1991: 214)

| | | | |
|-------------------------|-----------|-------------|------------|
| <i>Ki</i> | <i>yo</i> | <i>kūdi</i> | <i>kā!</i> |
| it | say | chief | give |
| 'Say it for the chief.' | | | |

Lahu *pî* 'give' > benefactive marker (indicating that the verbal action impinges on a third person). Ex.

Lahu (Matisoff 1991: 396)

chɔ pî.
'Chop for him/her/them.'

Burmese *pè* 'give' > benefactive marker, auxiliary (Park 1992: 16). Yao Samsao *pun* 'give' > benefactive preposition, (>) causative complementizer. Ex.

Yao Samsao (Matisoff 1991: 428)

(a) *nîn* *pun* *pəw* *yiə.*
3:SG give axe 1:SG
'He gave me an axe.'

(b) *maa* *cáp* *bùdò?-gwǎy* *pun* *fù?-cúəy.*
mother cut fingernails give child
'The mother cut the child's nails for him.'

Vietnamese *cho* 'give' > benefactive preposition/postposition (Matisoff 1991: 429). Ex.

Vietnamese (Kuhn 1990: 5–6)

(a) *bà* *Ba* *cho* *Lan* *mɔ:t* *cái* *ví.*
Mrs. Ba give Lan one CLASS bag
'Mrs. Ba has given Lan a bag.'

(b) *to:i* *mua* *cho* *bà* *Hai* *cái* *dò:ng hò:*
1:SG buy BEN Mrs. Hai CLASS watch
d'ó.
this
'I bought this watch for Mrs. Hai.'

Mandarin Chinese *gěi* 'give' > 'to', 'for', benefactive/dative preposition (Hagège 1975: 160). Archaic Chinese *yu* 'to give' > benefactive marker (see Peyraube 1988, 1996; Sun 1996: 22ff.). Ex.

Tenth century Chinese (*Zutangji*; quoted from Sun 1996: 22)

yu *lao* *seng* *guo* *jing* *shui- ping.*
for old monk pass clean water-bottle
'(Someone) rinsed the bottle clean for the old monk.'

Kxoe *mân* 'give', 'offer' > *-ma* 'for', benefactive derivative suffix. Ex.

Kxoe (Köhler 1981a: 503)

| | | | | | | |
|--------------|------------|------------|-----------|-----------|-----------|------------|
| <i>djàɔ-</i> | <i>rɔ'</i> | <i>ma-</i> | <i>à-</i> | <i>tè</i> | <i>tí</i> | <i>'à.</i> |
| work- | II- | BEN- | I- | ASP | 1:SG | OBJ |

'(He) works for me.'

Tamil *koṭu* 'give', verb of action > auxiliary marking the benefactive case. Ex.

Tamil (T. Lehmann 1989: 227)

| | | | | |
|---------------|----------------------|-------------------|--------------|------------|
| <i>raajaa</i> | <i>kumaar-ukku-k</i> | <i>katav-ai-t</i> | <i>tira-</i> | <i>ntu</i> |
| Raja | Kumar- DAT | door- ACC | open- | PARTCP |

| | | |
|--------------|------------|-------------|
| <i>koṭu-</i> | <i>tt-</i> | <i>aan.</i> |
| give- | PAST- | 3:M:SG |

'Raja opened the door for Kumar.'

This is a common grammaticalization process in Atlantic pidgins and creoles; for further examples see Holm 1988: 184–5 and Muysken and Veenstra 1995: 290ff. Negerhollands CD *gi* (Dutch *geven*) 'give', action verb > benefactive preposition. Ex.

Negerhollands CD (Stolz 1986: 185, 216)

- (a) *astər* *mi* *ga:* *gi* *si*
 (after 1:SG CPL give POSS:3:SG
kabái *watər*
 horse water)
 'after I had given his horse water'
- (b) *as* *ju* *kan* *fang* *som* *fligi*
 (CONJ 2:SG can catch some flies
gi *mi*
 BEN 1:SG)
 'when you can catch some flies for me'

Fa d'Ambu CP *da* 'give' > benefactive marker. Ex.

Fa d'Ambu CP (Post 1992: 158)

| | | | | |
|------------|------------|-----------|-------------|----------------|
| <i>amu</i> | <i>ske</i> | <i>fě</i> | <i>taba</i> | <i>da- bó.</i> |
| 1:SG | PART | make | work | give-you |

'I'll do the work for you.'

See also Newman 1996, 1997 for more details. In Old Chinese, the verb *yu* 'to give' has been grammaticalized to a benefactive marker, but it has also given rise to a comitative pre-verbal preposition (Sun 1996: 44). More research is required on the latter line of grammaticalization. This is an instance of a process whereby process verbs, on account of some salient semantic property, give rise to grammatical markers expressing case relations; compare COME FROM; FOLLOW; GO TO; LEAVE; SEE; TAKE.

GIVE > (2) CAUSATIVE

Thai *hâj* ‘give’ > causative complementizer. Ex.

Thai (Matisoff 1991: 437)

| | | | | | |
|------------------|------------------|------------|------------|------------|------------|
| <i>mêε-khrua</i> | <i>hâj</i> | <i>dèk</i> | <i>tàt</i> | <i>nýa</i> | <i>pen</i> |
| cook | give | child | cut | meat | be |
| <i>chín</i> | <i>lék- lék.</i> | | | | |
| slice | small-small | | | | |

‘The cook had the child cut the meat into tiny slices.’

Vietnamese *cho* ‘give’ > (benefactive adposition >) permissive/causative complementizer. Ex.

Vietnamese (Matisoff 1991: 429)

| | | | | | |
|------------|-----------|--------------|------------|------------|--------------|
| <i>ông</i> | <i>ây</i> | <i>không</i> | <i>cho</i> | <i>tôi</i> | <i>thôi.</i> |
| HON | 3:SG | NEG | give | 1:SG | resign |

‘He wouldn’t let me resign.’

Khmer *qaoy* ‘give’ > causative complementizer (with sentential object). Ex.

Khmer (Matisoff 1991: 429–30)

| | | | | |
|------------------|--------------|--------------|-------------|-----------------|
| (a) <i>mənuh</i> | <i>prəh</i> | <i>baan</i> | <i>qaoy</i> | <i>siəwphəw</i> |
| person | male | PAST | give | book |
| <i>təw</i> | <i>mənuh</i> | <i>sɔdy.</i> | | |
| to | person | female | | |

‘The man gave the book to the woman.’

| | | | |
|-----------------|-------------|-------------|--------------|
| (b) <i>kñom</i> | <i>qaoy</i> | <i>kəət</i> | <i>ruət.</i> |
| 1:SG | give | 3:SG | run |

‘I had him run (intentionally).’

| | | | | |
|-------------|-------------|-------------|-------------|--------------|
| <i>kñom</i> | <i>twəə</i> | <i>qaoy</i> | <i>kəət</i> | <i>ruət.</i> |
| 1:SG | do | give | 3:SG | run |

‘I made him run (maybe by scaring him inadvertently).’

Luo *miyo* ‘give’, verb > causative auxiliary. Ex.

Luo (Stafford 1967: 72)

| | | | | | |
|-------------|----------------|-----------------|----------|--------------|--------------|
| <i>Koth</i> | <i>no-miyo</i> | <i>wa- bedo</i> | <i>e</i> | <i>tiend</i> | <i>yath.</i> |
| (rain | 3- give | 1:PL-stay | at | foot | tree) |

‘The rain made us stay at the foot of the tree.’

Somali *siin* ‘give’, verb > *-siin*, causative suffix (Marcello Lamberti, personal communication). Siroi *t-* ‘give’ > causative auxiliary (Wells 1979: 56–7).

The development GIVE > CAUSATIVE tends to involve a stage where in the addition to CAUSATIVE there is also a PERMISSIVE function, referred to by Matisoff (1991: 427–31) as a “permissive-causative function.” See also Newman 1996, 1997 for more details.

GIVE > (3) CONCERN

Zande *fu* 'give', verb > *fu, fo*, marker of concern. Ex.

Zande (*Canon and Gore 1926: 37*)

Mi nazinga fo ko.

'I am angry with him.'

Fa d'Ambu CP *da* 'give' > concern marker. Ex.

Fa d'Ambu CP (*Post 1992: 158*)

| | | | | |
|---------------|-------------------|-------------|-----------|-----------|
| <i>dantu</i> | <i>television</i> | <i>xa</i> | <i>fa</i> | <i>xa</i> |
| in | television | PART | speak | PART |
| <i>montyi</i> | <i>da</i> | <i>kuz.</i> | | |
| much | give | thing | | |

'On television they speak often about the affair.'

This is an instance of a pathway whereby process verbs, on account of some salient semantic property, give rise to grammatical markers expressing case relations; compare COME FROM; FOLLOW; GO TO; LEAVE; SEE; TAKE.

GIVE > (4) DATIVE

Archaic Chinese *yu* 'to give' > Medieval Chinese (around the eighth century A.D.) *yu* 'to', dative preposition, arising in a serial verb construction (Peyraube 1988: 633–40; see also Peyraube 1996: 178–82, 1999: 204; Sun 1996). In Early Mandarin Chinese, *yu* was replaced by the verb *gei* 'give', which also developed into a benefactive and dative preposition. These stages of development are illustrated here with examples from Modern Mandarin Chinese.

Modern Mandarin Chinese (*Sun 1996: 44*)

(a) *ta* *gei* *le* *wo* *wu-kuai* *qian.*
 3:SG give ASP 1:SG five CLASS
 'He gave me five dollars.'

(b) *wo* *xie* *le* *yi- feng* *xin* *gei*
 1:SG write ASP one-CLASS letter to
ta.
 him
 'I wrote him a letter.'

Ewe *na* 'give', verb > 'for', 'to', benefactive, dative preposition. Ex.

Ewe (*Heine et al. 1991: Chapter 1*)

(a) *me-* *na* *ga* *kofi.*
 1:SG- give money Kofi
 'I gave Kofi money.'

(b) *é* *gblɔ* *e* *na* *m.*
 3:SG say it give me
 'He told it to me.'

Yoruba *fún* 'give to' > 'for', 'to', benefactive, dative preposition (Lord 1989: 92ff.).
 Engenni *kyẹ* 'give' > 'for', 'to', benefactive, dative preposition (Lord 1989: 99ff.).
 Saramaccan CE *dá* 'give' > benefactive, dative marker (Lord 1989: 106). Zande
fu 'give' > (benefactive preposition>) 'for', 'to', dative preposition (Canon and
 Gore 1926: 37). São Tomense CP *da* 'give', verb > dative marker. Ex.

São Tomense CP (Romaine 1988: 56)

| | | | |
|----------|-----------|-----------|-------------|
| <i>e</i> | <i>fa</i> | <i>da</i> | <i>ine.</i> |
| he | talk | give | them |

'He talked to them.'

Saramaccan CE *dá* (< Portuguese *dar* 'give') 'give' > dative marker. Ex.

Saramaccan CE (Veenstra 1996: 101, 102)

- | | | | | | |
|-----|-----------|-----------|-----------|-------------|--------------|
| (a) | <i>mí</i> | <i>dá</i> | <i>dí</i> | <i>mííí</i> | <i>móni.</i> |
| | 1:SG | give | DET:SG | child | money |
- 'It is me that gave money to the child.'
- | | | | | | | |
|-----|-----------|-----------|-------------|-----------|------------|-----------------|
| (b) | <i>de</i> | <i>bì</i> | <i>táki</i> | <i>dá</i> | <i>hen</i> | <i>táa. . .</i> |
| | 3:PL | TNS | talk | give | 3:SG | say |
- 'They told him that. . .'

As these examples from Saramaccan CE show, BENEFACTIVE markers may give rise to DATIVE markers, for example, when the main verb is an utterance verb, such as 'say' or 'tell', or a transaction verb, such as 'sell'. In a number of these examples, we are dealing with intermediate stages of evolution where the relevant marker is still used for BENEFACTIVE senses but has acquired DATIVE senses in specific contexts where a BENEFACTIVE interpretation no longer makes sense. Not infrequently, this process is part of a more general chain of grammaticalization: GIVE > BENEFACTIVE > DATIVE; see also Newman 1996, 1997 for more details. This is another instance of a pathway whereby process verbs give rise to grammatical markers expressing case relations; compare COME FROM; FOLLOW; GO TO; LEAVE; SEE; TAKE.

GIVE > (5) PURPOSE

Acholi *o-miyo* 'give' (third person past form) > 'to cause', 'because of', 'so that', result conjunction. Ex.

Acholi (Malandra 1955: 115)

| | | | | | | | | |
|-----------|-----------------|-------------|----------|---------------|--------------|-----------------|-------------|-----------|
| <i>En</i> | <i>o-</i> | <i>yel-</i> | <i>a</i> | <i>madaa,</i> | <i>omiyo</i> | <i>a-</i> | <i>goy-</i> | <i>e.</i> |
| (he | 3:SG-annoy-1:SG | | | much | give | 1:SG-beat-3:SG) | | |

'He vexed me so much so that I beat him.'

Thai *hây* 'give' > purposive marker. Ex.

Thai (Song 1997: 327)

- | | | | | |
|-----|-------------|------------|-------------|-------------|
| (a) | <i>phǎw</i> | <i>hây</i> | <i>ŋəən</i> | <i>Pùk.</i> |
| | father | give | money | Pook |
- 'Father gave Pook (some) money.'

- (b) *khăw* *khiăñ* *còtmăay* *hây* *khun* *tòp*.
 3 write letter give you answer
 ‘He wrote a letter so that you would answer.’

Vietnamese *cho* ‘give’ > ‘so that’, purposive marker (Song 1997: 333). Khmer *ʔaoy* ‘give’ > ‘so that’, purposive marker (Song 1997: 333). Saramaccan CE *dá* (< Portuguese *dar* ‘give’) ‘give’ > purpose marker (restricted clauses). Ex.

Saramaccan CE (Veenstra 1996: 104)

- dí* *mujée* *mbéi* *te* *dá* *dí* *mú*
 DET:SG woman make tea give DET:SG child
bebé.
 drink
 ‘The woman made tea for the child to drink.’

For a detailed discussion of purpose extensions of ‘give’, see Newman 1996: 171–81. The Acholi example appears to suggest that it is RESULT-clauses, rather than PURPOSE-clauses, that are the primary target of GIVE-verbs. One common source of PURPOSE markers consists of BENEFACTIVE grams. Conceivably, we are dealing here with a more extended chain: GIVE > BENEFACTIVE > PURPOSE; see BENEFACTIVE. See also Newman 1996, 1997 for more details. This is another instance of a pathway whereby process verbs give rise to grammatical markers expressing case relations; compare COME FROM; FOLLOW; GO TO; LEAVE; SEE; TAKE.

GO > (1) ANDATIVE

Proto-Chadic **də* ‘go’ > Hona -’*d*, andative (“centrifugal”) extension (Frajzyngier 1987c: 35). Logone *lə* ‘go’, -*li* andative extension (Frajzyngier 1987c: 35). Gurenne *ta* ‘go’ > andative marker. Ex.

Gurenne (Rapp 1966: 69f.)

- Gulese* *leta* *ta* *bo* *fo* *so*.
 (write letter go give your father)
 ‘Write a letter to your father.’

Mandarin Chinese *qù* ‘go’, verb of motion > -*qù* ‘away from the speaker’, directional marker (Li and Thompson 1981: 59). Ex.

Mandarin Chinese

- Tā* *ná-* *qù-* *le* *liǎng-* *běn* *shū*.
 3:SG bring- go- PFV two- CLASS book
 ‘S/He took (away from the speaker) two books.’

A number of instances of this grammaticalization have been reported from pidgin and creole languages. Haitian CF *ale* ‘go’ > andative marker. Ex.

Haitian CF (Boretzky 1983: 174)

| | | | |
|-------------|--------------|----------|-------------|
| <i>voye</i> | <i>msye-</i> | <i>a</i> | <i>ale.</i> |
| (send | man- | DEF | go) |

‘Send the man away.’

Grand Ronde Chinook Jargon *tátwa* ‘go’ > *tátu* ‘action away from the speaker’ (preceding main verbs); for example, *tátu ískam* (lit.: ‘go take’) ‘take away from’ (Grant 1996: 236). Negerhollands CD *loop*, *lo(o)* (< Dutch *lopen*) ‘go’, ‘run’ > ‘away’, directional (andative) adverb. Ex.

Negerhollands CD (Stolz 1986: 216, 234)

- (a) *Ju lo: afo fa mi.*
 (2:SG go in front of 1:SG)
 ‘You go in front of me.’
- (b) *Am a flig lo mi di flut.*
 (3:SG PERF fly away PREP DEF flute)
 ‘He flew away with the flute.’

For more examples from pidgins and creoles, see Arends, Muysken, and Smith 1995. This is an instance of a process whereby a verb, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; compare **CROSS**; **DESCEND**; **PASS**.

GO > (2) CHANGE-OF-STATE

English *go* > change-of-state marker of limited productivity. Ex.

English

- (a) *He went home.*
 (b) *He went mad.*

Tamil *poo* ‘go’, verb of motion > auxiliary marking a change-of-state. Ex.

Tamil (T. Lehmann 1989: 224)

| | | | | |
|---------------|--------------|------------|-----------------|----------------|
| <i>paanai</i> | <i>uṭai-</i> | <i>ntu</i> | <i>pooy-ir-</i> | <i>ru.</i> |
| pot | break- | PARTCP | go- | PAST-3:NEUT:SG |

‘The pot got broken.’

French (*il*) *va* ‘(he) goes’ > Haitian CF *a-*, *ava-*, *va-*, future marker, conceivably change-of-state marker in examples such as the following:

Haitian CF (Hall 1953: 33)

| | | | |
|---------------|-----------|------------|--------------|
| <i>madâm-</i> | <i>lâ</i> | <i>va-</i> | <i>rich.</i> |
| (lady- | DEF | ?- | rich) |

‘The lady will be rich.’

GO > (3) CONSECUTIVE

Moré *ti* ‘go (to)’, defective verb > ‘and’, conjunction (Alexandre 1953b: 393–4). Kxoe *ci* ‘go’, ‘proceed’, motion verb > new-event marker (paraphrasable as

‘watch out, now something new is going to happen that is relevant to what follows’), see Heine 2000a. Ex.

Kxoe (Heine 1997e: 33, 36)

- (a) //é *cií* *nù* //’àè *okà* //gɛ́é-khoe-djì
 1:M:PL reach when home LOC woman- 3:F:PL
cií- á-xu- a- tà //’àè *okà*.
 reach-I- TERM-II-PAST home LOC

‘And when we reached our home, the women had already arrived there.’

- (b) *taátenu* *córò-* *hè* *táá-kho(e)-mà* *ci*
 then monitor-3:F:SG old-man- 3:M:SG proceed
wó- ò-tè. . .
 find-I- PRES

‘Then an old man found a monitor lizard. . .’

This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to markers used to structure narrative discourse; compare COME; FINISH.

GO > (4) CONTINUOUS

Djinang *kiri-* ‘go’, verb > progressive aspect auxiliary (Waters 1989: 130–2). Yolngu *marrtji-* ‘go’, ‘come’, verb > marker of durative aspect when used in conjunction with a main verb (Austin 1998: 32). Wichita *i:ya:* ‘go randomly’ > continuous marker. Ex.

Wichita (Rood 1976: 65)

- wit-* *i:ya:*
 boil- go:randomly
 ‘be boiling’

Maricopa *yaa-k* ‘go’ > progressive auxiliary. Ex.

Maricopa (Gordon 1986: 219)

- nyaa* *vesh-* *k* *vny-* *yaa-* *m-* *i.*
 I run- SS DEM- go- DIR- VINC
 ‘I am running.’

Koasati *ai:yan* ‘go’ > continuous marker. Ex.

Koasati (Kimball 1991: 90–1)

- ísko-* *t* *ai:ya-* *k* *im-*
 drink- CONN go- SS 3:STATS-
cokfolóhli- *t. . .*
 be:dizzy- CONN

‘He kept on drinking, became dizzy, and. . .’

Spanish *andar, ir* + present participle > progressive marker (Bybee and Dahl 1989: 58, 79). The Turkish continuous marker *-yor* appears to derive from the Old Turkish verb *yorimak* ‘go’, ‘walk’. Ex.

Turkish (anonymous reader; Lewis [1967] 1985: 108–9)

| | | |
|------------|-------------|-------------|
| <i>buz</i> | <i>eri-</i> | <i>yor.</i> |
| ice | melt- | CON |

‘The ice is melting.’

Lahu *qay* ‘go’ > “versatile” verb having a continuative, inchoative function. Ex.

Lahu (Matisoff 1991: 407)

| | | |
|------------------|-------------------|------------|
| <i>vəʔ</i> | <i>vəʔ</i> | <i>qay</i> |
| put:on/wear | (wear | go) |
| ‘put on,’ ‘wear’ | ‘goes on wearing’ | |

Tarahumara verb + *eyéna* ‘go’ > progressive (Bybee and Dahl 1989: 58). Aranda **ape* ‘go’, verb of motion > *-pe*, durative marker (bound morpheme; Wilkins 1989: 244). Ex.

Aranda (Wilkins 1989: 244)

| | |
|-----------------------|--|
| <i>angke-rre-</i> | <i>angke-rre-pe-rre-</i> |
| ‘speak to each other’ | ‘to be continually speaking to each other’ |

Gwari *lō* ‘to go’, verb > present continuous marker (Heine and Reh 1984: 198). Negerhollands CD *loop*, *lo(o)* (< Dutch *lopen*) ‘go’, ‘run’, motion verb > durative, progressive, habitual auxiliary. Ex.

Negerhollands CD (Stolz 1986: 153, 179)

- | | | | | | |
|---|----------------|------------|------------|-------------|--------------|
| (a) <i>Dat</i> | <i>e:nte:n</i> | <i>man</i> | <i>nə</i> | <i>kan</i> | <i>lo:</i> |
| (that | nobody | man | NEG | can | go |
| <i>apé:</i> | <i>am</i> | <i>be:</i> | | | |
| where | 3:SG | be) | | | |
| ‘so that nobody could go to where she was’ | | | | | |
| (b) <i>Am</i> | <i>a</i> | <i>ki</i> | <i>e:n</i> | <i>puši</i> | <i>bo</i> |
| (3:SG | PERF | see | a | cat | on |
| <i>di</i> | <i>hus</i> | <i>lo</i> | <i>was</i> | <i>ši</i> | <i>gesé:</i> |
| DEF | house | DUR | wash | POSS | face) |
| ‘He saw a cat that was cleaning its face on the house.’ | | | | | |

Tok Pisin PE *igo* (cf. English *go*) ‘go’ > continuous aspect marker, emphasizing duration (postverbal). Ex.

Tok Pisin PE (Sankoff 1979: 44–5)

- (a) *ol igo wok finis. . . .*
‘They had gone to work. . . .’
- (b) *Em isave pilei long das tasol igo igo. . . .*
‘He would keep playing in the dust. . . .’

This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare BEGIN; COME FROM; COME TO; DO; FINISH; KEEP; LEAVE; PUT.

GO > (5) DISTAL DEMONSTRATIVE²⁹

Mopun 'di 'go', verb > distal demonstrative (Frajzyngier 1987b). South !Xun tò`à (tò`àh) 'go', motion verb > distal demonstrative. Ex.

South !Xun (Köhler 1973b: 48)

| | | | |
|-----------------------------------|-----------|----------|--------------|
| <i>dzháú-</i> | <i>s-</i> | <i>à</i> | <i>tò`àh</i> |
| woman-PL-R | | | DISTAL |
| 'the women there' / 'those women' | | | |

South !Xun 'úú 'go' + tò`à 'go' > 'úú-tò`àh, remote demonstrative. Ex.

South !Xun (Köhler 1973b: 48)

| | | |
|-----------------------------------|----------|------------------|
| <i>dzháú-</i> | <i>à</i> | <i>'úú-tò`àh</i> |
| woman-R | | go- DISTAL |
| 'the woman over there (far away)' | | |

Note that Archaic Chinese *ZHI* 'to go' has given rise to a proximal demonstrative ('this'; Yue-Hashimoto 1995; Alain Peyraube, personal communication). See further Frajzyngier 1987b, 1995. This pathway is suggestive of a process whereby physical motion is used as a structural template to express location. Note, however, that there is an alternative view according to which demonstratives are diachronically, so to speak, "semantic primitives"; that is, they may give rise to various kinds of grammatical markers, while they themselves cannot be historically derived from other entities like lexical items (see Plank 1979; Diessel 1999b: 150ff.). See, however, **HERE**; **THERE**.

GO > (6) HABITUAL

CONTINUOUS aspect markers may further develop into habitual aspect markers; hence, GO-verbs may acquire habitual uses. In Djinang, the verb *giri* 'go' appears to have given rise to an habitual auxiliary (Waters 1989: 131–3), and so has the Diyari verb *wapayi* 'go' (Austin 1998: 30). Negerhollands CD *loop*, *lo(o)* (< Dutch *lopen*) 'go', 'run', motion verb > durative, progressive, habitual auxiliary. Compare **CONTINUOUS**; **SIT**.

This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare **BEGIN**; **COME FROM**; **COME TO**; **DO**; **FINISH**; **KEEP**; **LEAVE**; **PUT**.

GO > (7) HORTATIVE

Rama *bang* 'go' > first person plural imperative suffix (Craig 1991: 477). Baka *gò* 'go' (followed by a verb) > imperative marker. Ex.

²⁹ There is a possible counterexample to this grammaticalization: the Chinese verb *zhi* 'to go' has been claimed to be derived from the demonstrative pronoun *zhi* 'this' (see Peyraube 1996: 191).

Baka (Christian Kilian-Hatz, personal communication)

- (a) gɔ̃-ε na ja ndɔ!
 go-IMP INF take banana
 'Go and fetch bananas!'
- (b) gɔ̃ ja ndɔ!
 go take banana
 'Fetch bananas!'

English *go* is frequently used in colloquial imperatives, sometimes reinforced by a following *and*. Ex.

English (anonymous reader)

Go and finish your essay.

French *allons* 'we go', 'let us go' has become a first person plural imperative marker, *anō*, *anu*, *ān*, or *ānu*, in various French-based creoles (see Goodman 1964: 89). This appears to be a process whereby certain verbs assume an interpersonal function in specific contexts involving commands and related interpersonal functions; compare COME > HORTATIVE; LEAVE > HORTATIVE; LEAVE > PERMISSIVE.

'Go down' see DESCEND

GO TO > (1) ALLATIVE

Archaic Chinese *YU* 'go to' > 'to', 'at' (Alain Peyraube, personal communication). Rama *ba(ng)* > 'goal', 'target' (Craig 1991: 461). Ewe *yi* 'go', verb > 'to', allative co-verb. Ex.

Ewe

- (a) é -yi apé.
 3:SG-go home
 'She went home.'
- (b) me- kplɔ e yi apé.
 1:SG-accompany 3:SG:OBJ go home
 'I escorted him home.'

[Xam //a 'go', 'run', verb > allative preposition. Ex.

[Xam (Bleek 1956: 512–13)

- (a) ŋ //a ha to:i.
 (1:SG go DEM ostrich)
 'I go to that ostrich.'
- (b) ha !nerri:ja //a: olifantsklu:f.
 (3:SG drive go Oliphantskloof)
 'He drives away to Oliphantskloof.'

[Ani *kûn-à-nà* 'going (to)' > 'toward', 'until', preposition (Heine 1999a: 45). Mandarin Chinese *cháo* 'go toward' > *cháo* 'to', 'toward', allative preposition. Ex.

Mandarin Chinese (Hagège 1975: 97)

| | | | | | | | |
|-------|-----|-------|-----|--------|--------|--------|-----|
| wǒmen | fēi | yībān | de | cháo | zhe | shíyàn | suǒ |
| we | fly | like | ADV | going; | toward | lab | |
| pǎo | qù. | | | | | | |
| run | DIR | | | | | | |

'We rushed (lit.: 'ran as if flying') toward the lab.'

Fa d'Ambu CP (Post 1992: 157)

| | | | | | | |
|-----|-------|-------|-----|-------|----|--------|
| wan | namín | zugá | wan | budu | ba | zinál. |
| ART | child | throw | ART | stone | go | window |

'The child threw a stone at the window.'

Compare Aristar 1991, 1999. This is an instance of a process whereby process verbs, on account of some salient semantic property, give rise to grammatical markers expressing case relations; compare COME FROM; FOLLOW; GIVE; LEAVE; SEE; TAKE.

GO TO > (2) FUTURE

English *be going to* > future marker (Pérez 1990). French *aller* 'to go (to)', verb > future marker. Bari *tu* 'go', verb > future marker. Ex.

Bari (Spagnolo 1933: 105)

| | | |
|-----|----|------|
| Nan | tu | kɔn. |
| (I | go | do) |

'I am going to do.' (determinative future)

Sotho *-ǎa* 'go (to)', verb > *-ea-*, immediate future tense prefix. Ex.

Sotho (Doke and Mofokeng [1957] 1985: 205)

| | |
|---------------|---------|
| kē- | ǎa-rèka |
| (1:SG-go-buy) | |

'I am about to buy.' / 'I am going to buy.' / 'I shall buy.'

Zulu *-ya* 'go', verb > *-ya-*, remote future marker. Ex.

Zulu (Mkhatshwa 1991: 97)

| | | | |
|---------|----|------|---------------|
| (a) Ba- | ya | e- | Goli. |
| (3:PL- | go | LOC- | Johannesburg) |

'They are going to Johannesburg (eGoli).'

| | | | |
|---------|------|------|---------|
| (b) Ba- | ya- | ku- | fika. |
| (3:PL- | FUT- | INF- | arrive) |

'They will arrive.'

Margi *rà* (*rá*) 'to go', verb > future tense marker. Ex.

Margi (Hoffmann 1963: 212)

| | | |
|-------|-----|------|
| nì | àrá | wì. |
| (1:SG | go | run) |

'I shall run.'

Bassa *mu* 'go', verb > future tense marker. Dewoin *mu* 'go', verb > *mu . . . mu*, future tense marker. Tepo *mu* 'go', verb > future tense marker. Krahn *mú* 'go', verb > future tense marker. Klao *mu* 'go', verb > future tense marker (these examples all from Marchese 1986: 74). Ex.

Klao (Marchese 1986: 74)

- (a) 55 *mū* *nī* *tó.*
 he:IMPERF go LOC store
 'He is going to the store.'
- (b) 55 *m̄* *nī* *kpa.*
 he:IMPERF AUX water hit
 'He will swim.'

Igbo *gà* 'go', verb > future tense marker. Ex.

Igbo (Marchese 1986: 110)

ó *gà* *àbyá.*
 he go come:NOMIN
 'He's going to come.'

Teso *a-losit* (INF-'go') 'to go', verb > future marker. Ex.

Teso (Hilders and Lawrance 1956: 11f.)

ki- *losi* *a- ilip.*
 (1:PL- go:PRES INF-pray)
 'We shall pray.'

Ecuadorian Quechua *ri-* 'go' > future tense marker. Ex.

Ecuadorian Quechua (Marchese 1986: 111)

puñu-k *ri-* *ni.*
 sleep-NOMIN go- 1:SG
 'I am going to sleep.'

Tzotzil *ba(t)* 'go', verb (when used in the incompletive aspect) > future tense marker. Ex.

Tzotzil (Haviland 1991: 13)

j- *tak* *ta* *k'anele,* *yu 'un*
 1:ERG-send PREP wanting because
ch- *ba* *tal-* *uk.*
 INCPL-go come-SUBJUNCT(:3:ABS)
 'However much [liquor] I send for, it's going to come.'

Tamil *poo* 'go', verb of motion > auxiliary marking future tense. Ex.

Tamil (T. Lehmann 1989: 217)

kumaar *oru* *viṭṭu* *kaṭṭ-* *a-p* *poo-kir-*
 Kumar a house build- INF go-

aan.

PRES-3:M:SG

'Kumar is going to build a house.'

In Basque, *joan* 'go' combines with the allative case marker (in *-ra*) of the gerund (in *-tze* or *-te*) of a verb to express future tense. Ex.

Basque (anonymous reader)

Kantatzera noa.

| | | | | | |
|---------------|-------------|-----------|------------------|-----------|------------|
| <i>kanta-</i> | <i>tze-</i> | <i>ra</i> | <i>n-</i> | <i>a-</i> | <i>oa.</i> |
| sing- | GER- | ALL | 1:SG:ABS-PRES-go | | |

'I'm going to sing.'

Instances of this grammaticalization can be found some way or other in perhaps more than half of all pidgins and creoles (see Goodman 1964: 86; Boretzky 1983: 121; Mufwene 1996 for some examples). Ex.

Krio CE (Marchese 1986: 111)

| | | | | | | |
|-----------|-----------|-------------|-----------|------------|-----------|--------------|
| <i>wi</i> | <i>go</i> | <i>tray</i> | <i>fo</i> | <i>puš</i> | <i>di</i> | <i>trak.</i> |
| (we | FUT | try | to | push | the | truck) |

'We will try to push the truck.'

Negerhollands CD *loop*, *lo(o)* (< Dutch *lopen*) 'go', 'run', motion verb > *lo(o)*, near future auxiliary. Ex.

Negerhollands CD (Stolz 1986: 164, 166)

| | | | | | |
|-----------------|----------------|----------|-----------|----------|-----------------|
| (a) <i>Astu</i> | <i>Aná:nši</i> | <i>a</i> | <i>lo</i> | <i>a</i> | <i>hus. . .</i> |
| (after | spider | PERF | go | to | house) |

'After the spider had gone home. . .'

| | | | | | | |
|-----------------|-----------|------------|------------|------------|---------------|--------------|
| (b) <i>Wel,</i> | <i>am</i> | <i>lo:</i> | <i>ma:</i> | <i>e:n</i> | <i>gunggu</i> | <i>ba:l.</i> |
| (INTJ | 3:SG | FUT | make | a | big | ball) |

'Well, he's (soon) going to give a big ball.'

Haitian CF *va* 'go' > future tense marker. Ex.

Haitian CF (Marchese 1986: 111)

| | | |
|-----------|-----------|--------------|
| <i>li</i> | <i>va</i> | <i>vini.</i> |
| he | go | come |

'He will come.'

See Ultan 1978a; Fleischman 1982a, 1982b, 1983; Heine and Reh 1984; Bybee et al. 1991 for more details on this process. For a cognitive interpretation of the process, see Emanatian 1992. This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to markers for tense or aspect functions; compare COME TO; DO; FINISH; KEEP; LEAVE.

GO TO > (3) PURPOSE

Tepo **mu* 'go', verb > *mú*, purpose clause marker. Ex.

Tepo (Marchese 1986: 143)

| | | | | | | |
|----|------|-----|----|-----|-----|-----|
| ɔ | dé | le | ɔ | mú | ó | yé. |
| he | come | LOC | he | AUX | him | see |

‘He came in order to see him.’

Cedepo **mu* ‘go (IMPERF)’, verb > *mu*, purpose clause marker. Ex.

Cedepo (Marchese 1986: 143)

| | | | | | |
|-----------|-----------|-----------|--------------|------------|--|
| ɔ | mí | tulubó | mú | | |
| he | go:IMPERF | Monrovia | go | | |
| <i>ma</i> | ɔ | <i>mí</i> | <i>kokwa</i> | <i>nú.</i> | |
| NOMIN | he | AUX | work | do | |

‘He’s going to go to Monrovia in order to work.’

Bakwé **mu* ‘go’, verb > *mu*, purpose clause marker. Ex.

Bakwé (Marchese 1986: 143)

| | | | | | | |
|------------|------------|------|-------|----|-----------|-----------|
| ā | nye | Dali | monii | ɔ | <i>mu</i> | <i>na</i> |
| I | gave | Dali | money | he | AUX | my |
| <i>lùv</i> | <i>sù.</i> | | | | | |
| cloth | buy | | | | | |

‘I gave Dali money so he would buy my cloth.’

Shona *ku-enda* ‘to go’, verb > (consecutive, finality >) *-ndo-*, purpose marker. Ex.

Shona (Hannan 1987: 158; O’Neil 1935: 170)

- (a) *va-enda ku-tstime.*
 (3:SG:PERF- go LOC- well)
 ‘She has gone to the well.’
- (b) *aka-enda ku-ndo-tsvaga*
 3:SG:PAST- go INF- go- search
chokudya.
 food
 ‘He went to look for some food.’

Rama *bang* ‘go’, verb > *-bang*, subordinating conjunction of goal, purpose. Ex.

Rama (Craig 1991: 457)

| | | |
|---------------------|------------------|----------------|
| <i>tiiskama ni-</i> | <i>sung-bang</i> | <i>taak-i.</i> |
| baby | 1:SG-see- SUB | go- TNS |

‘I am going in order to see/look at the baby.’

Ngbaka Ma’Bo *non* ‘go to’, verb > *non-*, purpose marker. Ex.

Ngbaka Ma’Bo (Thomas 1970: 179)

| | | | | |
|------|---------------|--------------|------------|-----------------|
| ʔó | <i>nō-lí,</i> | <i>nō-sè</i> | <i>ngó</i> | <i>gbó. . .</i> |
| they | go-ACTU | go-draw | water | all |

‘They go in order to draw water. . .’

Fa d'Ambu CP *ba* 'go' (> allative preposition) > '(in order) to', purpose marker. Ex.

Fa d'Ambu CP (Post 1992: 153)

| | | | | | |
|----------|-----------|-----------|-------------|-----------|---------------|
| <i>e</i> | <i>sé</i> | <i>ku</i> | <i>naví</i> | <i>ba</i> | <i>piska.</i> |
| 3:SG | go:out | with | boat | go | fish |

'He has left by boat to fish.'

Krio CE *gó* 'go', verb > purpose complementizer. Ex.

Krio CE (Rettler 1991: 144)

| | | | | | |
|-----------|-----------|-----------|-----------|-----------|------------|
| <i>lɛ</i> | <i>wi</i> | <i>gó</i> | <i>gó</i> | <i>si</i> | <i>am.</i> |
| (let | us | go | PURP | see | her/him) |

'Let's go see her/him.'

In creole languages, GO-verbs constitute a common source for PURPOSE markers. Such markers are said to express "realized intention" or "speaker determination"; see Bickerton 1981 and Rettler 1991 for contrasting views on the function of these markers. This is an instance of a process whereby process verbs, on account of some salient semantic property, give rise to grammatical markers expressing case relations; compare COME FROM; FOLLOW; GIVE; LEAVE; SEE; TAKE.

'Ground' see EARTH

H

HAND (body part) > (1) AGENT

Coptic *hitⁿ*- 'on the hand' > 'through', marker of agents in passive constructions. Ex.

Coptic (Stolz 1992a: 31)

| | | | |
|--------------|--------------------------|------------------|---------------|
| <i>au-</i> | <i>sōbe</i> | <i>°m-mo-</i> | <i>f</i> |
| 3:PL-deceive | | in- place-3:M:SG | |
| <i>ebol</i> | <i>hitⁿ</i> - | <i>°m-</i> | <i>magos.</i> |
| through | through-DEF:PL-magician | | |

'He was deceived by the magicians.'

Zande *bé* 'arm', 'hand', *be* 'in possession of' > *be* 'through', 'by', agent marker. Ex.

Zande (Canon and Gore [1931] 1952: 16–17)

(a) *Si be ko.*

'He has it.'

(b) *Si ye be da?*

'Through whom has it come?'

More research is required on the exact nature and the genetic and areal distribution of this process, which might be the result of a metonymic transfer, whereby the human hand is used to refer to the person as a whole.

HAND (body part) > (2) FIVE

Teso *a-kan* 'hand' > *akañ* 'five', numeral (Kitching 1915: 101, 104). Turkana *a-kànĩ* 'hand', 'arm' > *ḡa-kànĩ* 'five' (Dimmendaal 1983: 237, 303; Gerrit Dimmendaal, personal communication). Aztec *mā-itl* 'hand' + *cui* 'take' > *mācuilli* (lit.: 'hand-taking') 'five' (Stolz 1990: 10). Warao *moho basi* 'the extended hand' (lit.: 'hand flat') > 'five', numeral (see Romero-Figeroa 1997: 55). Hixkaryana *kamori* 'our (INCL) hand(s)' > *kamori i rakayo me* (lit.: 'our (INCL) hand(s) – divided/part/half – DENOMINALIZER') 'five', numeral (Derbyshire 1985a: 11).

Nouns for 'hand' probably provide the most widespread source for numerals for 'five' in the languages of the world (see Heine 1997b). This appears to be an instance of a process whereby a noun, on account of some salient semantic property (in this case, the presence of five fingers), gives rise to a more grammatical word (a numeral) highlighting that property.

HAND (body part) > (3) LOCATIVE

Estonian *käsi* 'hand', *käes* 'in the hand' > 'in', 'at'; *käest* 'out of the hand' > 'from'; *kätte* 'into the hand', 'into', 'at'. Ex.

Estonian (Stolz 1992a: 23)

| | | | | | |
|-------------------------|-----------|------------|------------|--------------|-----------|
| <i>päike-</i> | <i>se</i> | <i>kä-</i> | <i>tte</i> | <i>pane-</i> | <i>ma</i> |
| sun- | GEN | hand- | ILL | put- | INF |
| 'to place into the sun' | | | | | |

Coptic *toot-* 'hand', *n-toot-* 'in the hand of' > 'away from'; *ha-toot-* 'under the hand of' > 'at'; *hi-toot-* 'on the hand of' > 'through' (Stolz 1992a: 23). Mano *k'ḷè* 'hand', noun > 'in', postposition (Becker-Donner 1965: 23). This grammaticalization may be an instance of a more general process whereby certain body parts, on account of their relative location or their function, are used as structural templates to express location; see also BACK; BELLY; BUTTOCKS; EYE; FACE; FLANK; HEAD; NECK.

HAND (body part) > (4) H-POSSESSIVE³⁰

Kono *bóó* 'hand', 'arm', noun > postposition, possessive marker. Ex.

Kono (Donald A. Lessau, personal communication)

| | | | | |
|----------------------------|-----------|------------|--------------|-------------|
| <i>mḋtó</i> | <i>nì</i> | <i>wán</i> | <i>kḋmbá</i> | <i>bóó.</i> |
| car:DET | COP:PAST | EMPH | Komba | (hand) |
| 'Komba had in fact a car.' | | | | |

³⁰ H-POSSESSIVE stands for a marker of predicative possession expressed, for example, in English by *have*.

Bambara *bólo* 'hand', noun > marker of HAVE-possession. Ex.

Bambara (Kastenholz 1989: 58)

| | | | | |
|------------------|-----------|----------|-------------|--------------|
| <i>dúmunifɛn</i> | <i>té</i> | <i>à</i> | <i>dénw</i> | <i>bólo.</i> |
| (food | COP:NEG | 3:SG | children | hand) |

'His children have nothing to eat/have no food.'

Ewe *le ame así me* 'be in one's hand' > *le ame así* 'have', 'own', 'possess'. Ex.

Ewe

| | | | | |
|---------------|-----------|-------------|------------|------------|
| (a) <i>ga</i> | <i>le</i> | <i>así-</i> | <i>nye</i> | <i>me.</i> |
| money | be | hand- | my | in |

'Money is in my hand.'

| | | | |
|---------------|-----------|-------------|-------------|
| (b) <i>ga</i> | <i>le</i> | <i>así-</i> | <i>nye.</i> |
| money | be | hand- | my |

'I have money.'

Zande *bé* 'arm', 'hand' > *be*, possessive marker. Ex.

Zande (Canon and Gore [1931] 1952: 17)

| | |
|---------------|--------------|
| (a) <i>be</i> | <i>kumba</i> |
| (hand | man) |

'the man's hand'

| | |
|-----------------------|--------------------|
| (b) <i>Wene bambu</i> | <i>(du) be re.</i> |
|-----------------------|--------------------|

'I have a good house.'

Egyptian *m-^c:i* ('in my hand') 'in the hand' > 'in the possession', 'in charge of', preposition (Gardiner 1957: 132). So far, only examples from African languages have been found and, conceivably, this is an areally induced process. It would seem that we are dealing with a metaphorical process whereby the phrase *in X's hand* serves as a vehicle to express the notion 'in X's possession' (see Heine 1997a); compare HOME.

'Have' see H-POSSESSIVE

HEAD (body part) > (1) FRONT

Maasai *en-dukúya* 'head', noun > *dukúya* 'in front', 'ahead', adverb (Tucker and Mpaayei 1955: 248). Alambak *mèfha* 'head' > 'front', positional word used uniquely for canoes (Bruce 1984: 85). Compare English *ahead* and French *à la tête* 'in front'. Nouns for 'head' provide worldwide the most common source for UP terms (see HEAD > UP). But there are also a number of languages where 'head' has given rise to FRONT markers: according to Heine 1997b: 126, out of forty-six African languages that have grammaticalized a noun for 'head' to a spatial gram, six have developed a FRONT term. This appears to be an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; see also BACK; BELLY; BUTTOCKS; EYE; FACE; FLANK; HEART; NECK.

HEAD (body part) > (2) INTENSIVE-REFL

Fulfulde *hōre*, PL *ko'e* 'head', (*bē*) *hōre* '(with) one's head' > reflexive pronoun, used to strengthen or emphasize the identity of the concept concerned. Ex.

Fulfulde (Klingenheben 1963: 141–2)

| | | | | | | | |
|------------|-----------|-------------|------------|-------------------|-----------|-------------|--------------|
| <i>mīn</i> | <i>bē</i> | <i>hōre</i> | <i>'am</i> | <i>kamɓe</i> | <i>bē</i> | <i>ko'e</i> | <i>maɓɓe</i> |
| (I | with | head) | | (they | with | heads) | |
| 'I myself' | | | | 'they themselves' | | | |

Hausa *kai* 'head' + possessive suffix, preceded by an independent personal pronoun > 'self', intensive reflexive pronoun. Ex.

Hausa (Newman 2000: 527)

| | | | |
|--------------------------|--------------|------------------|------------|
| <i>ita</i> | <i>kāntà</i> | <i>tàurārùwā</i> | <i>cè.</i> |
| (she | head:her | star | is:F) |
| 'She herself is a star.' | | | |

Margi *kār* 'head' > emphatic reflexive pronoun.

Margi (Hoffmann 1963: 105)

| | | | |
|------------|-----------|-------------|------------|
| <i>nì</i> | <i>dǎ</i> | <i>kār-</i> | <i>d'à</i> |
| I | with | head- | my |
| 'I myself' | | | |

In addition, Moravcsik (1972: 272) mentions Amharic, Tigrinya, Kanuri, and Haitian CF as languages showing this grammaticalization. See also Heine 2000b and Schladt 2000 for more details. Compare **BODY**; **OWNER**.

HEAD (body part) > (3) MIDDLE³¹

Margi *kār* 'head', noun > middle marker (Hoffmann 1963: 105). Lele *cà* 'head', noun > middle marker (Frajzyngier 1997b: 17).

Nouns for 'head' constitute one of the main sources for reflexive markers, and the latter tend to give rise to middle markers; hence, the present case appears to be part of a more general grammaticalization chain: HEAD > REFLEXIVE > MIDDLE; see Kemmer 1993, Heine 2000b, and Schladt 2000 for more details; see also **BODY**; **HEAD > REFLEXIVE**.

HEAD (body part) > (4) REFLEXIVE

Fulfulde *hōre* 'head', noun > reflexive marker. Ex.

Fulfulde (Klingenheben 1963: 141)

| | | | |
|----------------------|-------------|-------------|--------------|
| <i>'o</i> | <i>ɓari</i> | <i>hōre</i> | <i>māko.</i> |
| he | killed | head | his |
| 'He killed himself.' | | | |

³¹ The notion "middle" is semantically complex, and it remains unclear whether we are really dealing with a distinct grammatical function.

Hausa *kai* 'head' > reflexive marker. Ex.

Hausa (Kraft and Kirk-Greene 1973: 225, 231)

Sun kashè kânsù.

(they kill head:their)

'They have committed suicide.' ('They have killed themselves'; lit.: 'They killed their head')

Mina *tàláj* 'head', noun > reflexive marker (Frajzyngier 1997b: 19). Pero *kó* 'head', noun > reflexive marker (Frajzyngier 1989: 183). Georgian *tavi* 'head' > reflexive marker. Abkhaz *-xə* 'head' > reflexive marker. Abaza *c-* 'head' > reflexive marker (Schladt 2000: 108). Mordvinian *prä* 'head', noun > reflexive marker; for example, *läcems prä* 'shoot oneself' (Haspelmath 1990: 44). In Basque, reflexives are formed by combining a suitable intensive genitive, such as *neure* 'my own', with *buru* 'head' plus the article *-a*. Ex.

Basque (anonymous reader; Saltarelli 1988: 104ff.)

Jon- ek bere buru- a hil

John- ERG his:own head- DET kill

z- ue- n.

PAST-AUX-PAST

'John killed himself.'

In a survey of roughly 150 languages, Schladt (2000: 112) found that nouns for 'head' form one of the major sources for reflexive markers. This grammaticalization is discussed in Heine 2000b and Schladt 2000. See also INTENSIVE-REFL; compare BODY; OWNER.

HEAD (body part) > (5) UP

Shona *musoro* 'head', noun > *pamusoro pa* (lit.: 'at head of') 'on top of', 'above', 'on account of', 'about'. Ex.

Shona (O'Neil 1935)

(a) *ha- a- na musoro.*

NEG-3:SG-COM head

'He is not clever.' (lit.: 'He has no head')

(b) *pa- ne gondo pa- msoro pe- gomo*

(ADE-COM eagle ADE-head ADE-C5:hill

irero.

C5:DEM)

'There is an eagle above that hill.'

Zande *ri* 'head', 'roof', noun > *ri* 'on top of', 'above', 'over', preposition (Canon and Gore [1931] 1952: 123). Kono *kùn* 'head', *kùmà* (< *kùn* + *má* 'head on') > *kùmà* 'over', 'on top'. Ex.

Kono (Donald A. Lessau, personal communication)

- (a) *í kùné kàmà?*
 2:SG head:DET how
 'How is your head?'
- (b) *éé sù-ó sòó kùmà.*
 3:SG:TAM sit-TAM horse on:top
 'He is sitting on a horse.'

Baka *njònjò* 'head', 'roof', alienable noun > 'upward'. Ex.

Baka (Brisson and Boursier 1979: 363)

- (a) *njò- lè ßà kè.*
 head-my ASP ache
 'I have headache.'
- (b) *ma à dòto à de- ngo,*
 1:SG ASP remain LOC side-river
ngamò mo ò ʔo
 2:SG:EMPH 2:SG NAR ascend
a njònjò ná.
 LOC head ART
 'I remain near the river; you go up.'

Moré *zugu* 'head', relational noun > 'on', 'over', postposition. Ex.

Moré (Alexandre 1953b: 501)

- a bé tég zugu.*
 (he be tree on)
 'He is on the tree.'

Gimira *deb* 'head' > *de'bm*^s postposition ('head'-case marker) 'on' (Breeze 1990: 38). Supyire *ɲuɲɔ* 'head' > 'on top of', postposition (Carlson 1991: 205). Welsh *pen* 'head', 'end', 'tip', 'mouth of a river', noun > *ymhen* (*yn* + *pen*) 'at the end of', *ar ben* (*ar* + *pen*) 'on top of', *uwch ben* (*uwch* + *pen*) 'above' (William 1960: 36). Kupto *kúu* 'head', noun > *kúu* 'up', 'above', locative adverb (Leger 1991: 20). Kwami *kúu* 'head', noun > 'on', locative marker (Leger 1991: 27). Egyptian *tp* 'head', noun > 'upon', preposition. Ex.

Egyptian (Gardiner 1957: 130)

- tp t3*
 head earth
 'on earth' (= 'living')

This grammaticalization appears to be an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; see also BACK; BELLY; BUT-TOCKS; EYE; FACE; FLANK; HEART; NECK.

HEART (body part) > IN³² (SPATIAL)

Chinese *XIN* ‘heart’ > *ZHONGXIN* (‘middle-heart’) ‘center’, ‘in’ (Alain Peyraube, personal communication). Aztec *yōllōtli* ‘heart’ > ‘center’, ‘in’. Ex.

Aztec (Stolz 1991a: 44)

| | | | |
|-------------------|------------------|----------------------|-----------------|
| <i>huēi</i> | <i>āltepē-tl</i> | <i>ī-</i> | <i>yōllō-co</i> |
| (big | town- ABS | 3:SG:POSS-heart-LOC) | |
| ‘in the big city’ | | | |

Accadian *libbu(m)* ‘heart’ > ‘interior’. Ex.

Accadian (Stolz 1991a: 44)

| | | | |
|--------------------|--------------|------------|------------|
| <i>ana</i> | <i>libbu</i> | <i>mā-</i> | <i>tim</i> |
| PREP | heart | country- | GEN:SG |
| ‘into the country’ | | | |

Imonda *òd-l* (heart-NOMIN) > ‘middle of’, locative marker (noun and adverb). Ex.

Imonda (Seiler 1985: 39)

| | | | | | |
|---|-----------------|-------------|-----------|-------------|--------------|
| <i>kebl</i> | <i>òd-</i> | <i>l-</i> | <i>ia</i> | <i>uai-</i> | <i>hapu.</i> |
| village | heart-NOMIN-LOC | ACC-come:up | | | |
| ‘He comes up to the middle of the village.’ | | | | | |

In Oceanic languages, ‘heart’ appears to be a common source for the locative notion IN; Bowden (1992: 36) found six Oceanic languages where ‘heart’ appears to have given rise to IN markers. This grammaticalization is an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; see also **BACK**; **BELLY**; **BUTTOCKS**; **EYE**; **FACE**; **FLANK**; **HEAD**; **NECK**.

HERE > (1) CAUSE

Lingala *áwa* ‘here’, locative adverb (> temporal conjunction ‘while’, ‘when’) > ‘since’, ‘because’, causal conjunction. Ex.

Lingala (van Everbroeck 1958: 83)

áwa oyó olingí té, tokotínda mwána mosúsu.
‘Since you don’t come, we’ll look for another boy.’

Albanian *ke* ‘here’, adverb > conjunction marking a causal clause. Ex.

Albanian (Buchholz et al. 1993: 221)

| | | |
|---------------|-----------|---------------|
| (a) <i>ja</i> | <i>ke</i> | <i>erdhi!</i> |
| (INTJ | here | arrive:AOR) |
| ‘Here he is!’ | | |

³² An anonymous reader of an earlier version of this work noted that the directionality in this case could easily go both ways, giving Russian *serdtse* ‘heart’ as an example, which s/he says is a clear derivative of *sered-* ‘middle’.

- (b) *ke* *s'fole* *ti*. . . .
 (here not PARTCP:say 2:SG)
 'Because you did not say anything. . . .'

This grammaticalization appears to be an instance of a more general process whereby spatial concepts are used to also express causal relations; see Radden 1985 and Heine et al. 1991 concerning an account of this process in terms of metaphorical transfer. Compare **BACK**; **LOCATIVE**; **PLACE**.

HERE > (2) DEMONSTRATIVE³³

French *ici* 'here', adverb > *-ci* 'this', part of the proximal demonstrative. Ex.

French

- (a) *Il* *est* *ici*.
 he is here
 'He is here.'
- (b) *cet* *homme-ci*
 this man- PROXIM
 'this man'

Hausa *nân* 'here', adverb > 'this', proximal demonstrative. Ex.

Hausa (Cowan and Schuh 1976: 70, 165)

- (a) *yanà* *nân*.
 he:is here
 'He's here.'
- (b) *dāwàr* *nân*
 guinea:COM this
 'this guinea corn'

Lingala *wáná* or *wáná* 'there (nearby)' and *kúnâ* or *kúná* '(over) there' > demonstratives *wáná* or *kúná* 'that'. Ex.

Lingala (Heine et al. 1993: 10)

- | | |
|---|---|
| (a) <i>yangó wáná</i> . 'It is there (near you).' | <i>azalí</i> <i>kúná</i> . 'He is there.' |
| (b) <i>moto wáná</i> person there 'that man (we're talking about)' | <i>moto kúná</i> person there 'that man (we're talking about)' |

³³ Note that there is a seeming counterexample to this process: in some languages demonstrative modifiers, when their head noun is omitted, may assume the function of adverbs, and this may mean that a proximal demonstrative ('this') functions as a kind of adverb ('here'). It would seem, however, that we are not dealing with a violation of the unidirectionality principle since in all cases where we met such a situation, complex demonstratives consisting of a locative plus a demonstrative element were involved. Thus, instead of a development from demonstrative to locative adverb, we appear to be dealing with a "bleaching" process [locative + demonstrative] > locative.

Ngbaka *ké* ‘there’, locative adverb > ‘that’, demonstrative. Ex.

Ngbaka (Heine et al. 1993: 206)

- (a) *zùlà ké. . .*
 rat there
 ‘There is a rat. . .’
- (b) *mɔ bá kpánà ké!*
 you take pot that
 ‘Take that pot!’

Buang *ken* ‘here’, place adverbial > postposed demonstrative. Ex.

Buang (Sankoff 1979: 35)

- (a) *Ke mdo ken.*
 I lives here
 ‘I live here.’
- (b) *Ke mdo byaŋ ken.*
 I live house this
 (‘I live in this house.’)

In some pidgins and creoles, adverbs for ‘here’ have given rise to demonstratives, usually in conjunction with other referential markers; for example, Papiamentu CS *e . . . aki* ‘the . . . here’ > ‘this’ proximal demonstrative (see Boretzky 1983: 99). Ex.

Papiamentu CS (Kouwenberg and Muysken 1995: 210–1)

- E pòrtrèt aki a wordu saká. . .*
 the picture here PAST be taken
 ‘This picture was taken. . .’

English *here* > Belizean CE *ya* demonstrative particle (Hellinger 1979: 324).

While the directionality of this grammaticalization appears to be well established, there are also examples that can be interpreted as being suggestive of an opposite directionality; more research is required on this issue. Note, however, that there is an alternative view according to which demonstratives are diachronically, so to speak, “semantic primitives”, that is, they may give rise to various kinds of grammatical markers, while they themselves cannot be historically derived from other entities such as lexical items (Plank 1979; Diessel 1999b: 150ff.). See also **THERE**.

HERE > (3) PERS-PRON

Chinese, dialect of Huojia *ZHER* ‘here’ > ‘we’, ‘us’ (Alain Peyraube, personal communication). Hagège characterizes this evolution: there are “languages which use spatial adverbs with the meaning of personal pronouns: Japanese *kotira* ‘here’ often refers to the speaker, Vietnamese *đây* ‘here’ and *đây* (or *đó* ‘there’) are used with the meanings ‘I’ and ‘you’ respectively when one wants

to avoid the hierarchical or affective connotations linked to the use of personal pronouns. . . ." (Hagège 1993: 216–17). More research is required on the significance and the exact nature of this process.

HERE > (4) RELATIVE

Tok Pisin PE *ia* (< English *here*) 'here' > relativizer (Sankoff and Brown 1976; Traugott 1986b: 541). In Tondano, the particle *wia*, *wia'i* 'here' has a number of uses that appear to include that of a relative clause marker, referred to as the 'relator' (RM) by Sneddon (1975). Ex.

Tondano (Sneddon 1975: 88, 124)

- (a) *si tuama maana? wia?i.*
 CM:SG man live here
 'The man lives here.'
- (b) *se tow rai? wia mbale*
 CM:PL person NEG RM CM:house
 'the people who aren't in the house'

This grammaticalization appears to proceed via the following more general process: HERE > DEMONSTRATIVE > RELATIVE (see Sankoff and Brown 1976: 663). The following example, involving Buang *ken*, illustrates this process, where (a) exhibits the locative adverb, (b) the demonstrative, and (c) the relative clause marker.

Buang (Sankoff 1979: 35–6)

- (a) *Ke mdo ken.*
 I live here
 'I live here.'
- (b) *Ke mdo byaŋ ken.*
 I live house this
 'I live in this house.'
- (c) *Ke mdo byaŋ ken gu le vkev.*
 I live house that you saw yesterday
 'I live in the house that you saw yesterday.'

The examples available are far from satisfactory to substantiate this process, but see HERE > DEMONSTRATIVE; DEMONSTRATIVE > RELATIVE for the two constituent parts of this process.

'Hold' see KEEP

HOME ('home', 'homestead') > (1) LOCATIVE

Acholi *paàco* 'homestead' > *pà* 'at' (Claudi and Heine 1989: 5ff.). Susu *khönyi* (*khön* + *yi* nominal marker) 'home', 'residence', noun > *khön(ma)* (= *khön* + *-ma* multipurpose particle) 'to', 'toward', postposition. Ex.

Susu (Friedländer 1974: 40)

| | | | | |
|------|-------------|----------------|------------|-------------------|
| A | <i>buki</i> | <i>khanima</i> | <i>Abu</i> | <i>khön(ma)</i> . |
| 3:SG | book | bring | Abu | to |

'He takes the book to Abu.'

Ngiti *ibha* 'at home', adverb > *bhà* 'at', 'with', locative postposition (Kutsch Lojenga 1994: 154).

While the evidence for this pathway includes languages that can be assumed to be genetically and areally unrelated, only African examples have been found so far. Nevertheless, we seem to be dealing with another instance of a more general process whereby relational nouns give rise to relational (typically spatial or temporal) grammatical markers; see, for example, **BOTTOM**; **BOUNDARY**; **EDGE**; **SIDE**; **TOP**.

HOME ('home', 'homestead') > (2) A-POSSESSIVE

Kabiye *té* 'homestead', 'home village', noun > genitive marker of alienable possession. Ex.

Kabiye (Claudi and Heine 1989: 4-5)

| | | | |
|----------------|-----------|-----------|--------------|
| (a) <i>pɛ-</i> | <i>té</i> | <i>wɛ</i> | <i>ɕéú</i> . |
| their-home | | be | beauty |

'Their home is beautiful.'

| | | |
|-----------------|-----------|-------------|
| (b) <i>kólú</i> | <i>té</i> | <i>píya</i> |
| blacksmith | of | children |

'the blacksmith's children' (e.g., those living in his compound but not his own)

Acholi *paàco* 'homestead' > *pà*, possessive marker (Claudi and Heine 1989). Ngiti *ibha*, 'at home', adverb > *bhà*, alienable attributive possessive marker on singular possessor noun phrases. Ex.

Ngiti (Kutsch Lojenga 1994: 154)

| | | |
|-------------|------------|------------|
| <i>kamà</i> | <i>bhà</i> | <i>dza</i> |
| chief | POSS | house |

'the chief's house(s)'

Note also that the attributive possessive marker *ka-* of Zulu and Xhosa can possibly be traced back to the Proto-Bantu noun **kááya* or **kaya* 'home (village)', whereby the construction 'at the home of X' was grammaticalized to '(property) of X' (Güldemann 1999a). So far there is evidence only from African languages; we may, therefore, be dealing with an areal phenomenon. It would seem that the present process is the result of a metaphorical process whereby the phrase *in X's home* serves as a vehicle to express the notion 'in X's possession' (see Heine 1997a); compare **HAND**.

HOUR > TEMPORAL

Lingala *ntángó* ‘hour’, ‘moment’, noun > *o ntángo ya* (LOC hour GEN) ‘during’, preposition. Ex.

Lingala (van Everbroeck 1958: 73, 152)

| | | | | |
|-------------------|---------------|---------------|----------------|---------------|
| <i>o</i> | <i>ntángo</i> | <i>ya</i> | <i>etumba,</i> | <i>basodá</i> |
| (at | hour | of | war | soldiers |
| <i>bakolálaka</i> | <i>o</i> | <i>biéma.</i> | | |
| they:sleep | at | tents) | | |

‘During the war, the soldiers sleep in tents.’

Italian *ora* ‘hour’, noun > *ora* ‘now’, temporal adverb. Basque *ordu* ‘hour’ is the base of *orduan* ‘then’, which contains the locative case ending *-an* (anonymous reader).

In a number of languages, nouns for ‘hour’ serve in some way or other in constructions expressing a temporal notion. Still, more data are required to assess the general distribution of this grammaticalization. This would seem to be another instance of a process whereby a noun, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; compare **BACK**; **EARTH**; **SKY**.

HOUSE > LOCATIVE

Old Swedish *hus* ‘house’, noun > Swedish *hos* ‘at’, ‘next to’. Ex.

Swedish (Stolz 1991b: 18)

| | | | | |
|------------|------------------|----------------|-----------|------------|
| <i>om</i> | <i>sommar-en</i> | <i>bo- dde</i> | <i>vi</i> | <i>hos</i> |
| PREP | SUMMER-DEF | live-PARTCP | PRON | PREP |
| <i>vår</i> | <i>tant.</i> | | | |
| our | aunt | | | |

‘Over the summer we stayed/lived with our aunt.’

Latin *casa* ‘house’, noun > French *chez* ‘at’, preposition (cf. Latin *in casa* ‘in the house’ > Old French *en schies* ‘at’, ‘to’; Gamillscheg 1928: 218). Accadian *bītu* ‘house’ > *bīt* ‘at’. Ex.

Accadian (Stolz 1991b: 18)

| | | |
|------------|-----------------|--------------|
| <i>bīt</i> | <i>imitti</i> | <i>šarri</i> |
| at | right:hand:side | king |

‘at the right side of the king’

Cagaba *hu* ‘hut’, *hú-vala* ‘in front of the hut’ > *húvala* ‘in front of’. Ex.

Cagaba (Stolz 1991b: 18)

| | |
|-----------------|----------------|
| <i>nuñhuá-ñ</i> | <i>hú-vala</i> |
| temple- LOC | in:front:of |

‘in front of/outside the temple’

Haitian CF *kay* ‘house’, noun > *ka* ‘at (the house of)’. Ex.

Haitian CF (Hall 1953: 30-1)

- (a) *lò* *m- té- fèk- abité* *kay* *Maglwa*
 (when 1:SG-PAST-CPL-live house Magloire)
 'when I had just gone to live at Magloire's house'
- (b) *ou* *rét* *ka* *moun?*
 (2:SG remain at:house person)
 'Are you staying at someone's house [i.e., not with relatives]?'

It would seem that we are dealing with a metaphorical process whereby a phrase like *in X's house* serves as a vehicle to express the notion 'in X's place'; compare **HOME**.

HOW? (W-QUESTION) > (1) COMPARATIVE

Hungarian *mint* 'how?', interrogative adverb > conjunction marking the standard of comparative constructions. Ex.

Hungarian (Halász 1988: 542)

- nagy-obb,* *mint* *a* *fia.*
 (tall- COMP than his son)
 'He is taller than his son.'

Colloquial German *wie?* 'how', question word > marker of standard in comparative constructions. Ex.

German

- (a) *Wie* *groß* *ist* *er?*
 how big is he
 'How big is he?'

Colloquial German

- (b) *Er* *ist* *größer* *wie* *sein* *Sohn.*
 he is tall:er than his son
 'He is taller than his son.'

Conceivably this process has an intermediate SIMILE stage in German; hence HOW? > SIMILE > COMPARATIVE (see the next entry). This process appears to be part of a more general evolution whereby interrogative words are grammaticalized to affirmative markers, or parts thereof; see, for example, W-QUESTION. Still, more data are required to substantiate this process.

HOW? (W-QUESTION) > (2) SIMILE

German *wie* 'how?', question word > *wie* 'like', preposition. Ex.

German

- (a) *Wie* *hast* *du* *das* *gemacht?*
 how have you that done
 'How did you do that?'

- (b) *Sie* *sieht* *aus* *wie* *eine* *Schauspielerin*.
 she looks out like a actress
 'She looks like an actress.'

(French *comment* 'how?' >) Seychelles CF *koma* 'how?' > 'like', preposition. Ex.

Seychelles CF (Corne 1977: 34)

- (a) *koma* *u* *dir* *sa* *á* *kreol?*
 (how you say that in creole)
 'How does one say that in creole?'
 (b) *ban* *koma* *u*
 (people like you)
 'people like you'

More research is required on the exact nature and the genetic and areal distribution of this process. See also MANNER; RESEMBLE; SAY.

I

IN (SPATIAL) > (1) CONTINUOUS

Lamang *ŋ* 'in', 'into', preposition > *ŋ*-, verbal progressive prefix. Ex.

Lamang (Wolff 1983: 165-6)

- ŋ*- *kə*l- *i*
 (PROG- take- 1:SG)
 'I am taking'

Vai *-ro* 'in', nominal suffix > progressive aspect marker. Ex.

Vai (Koelle [1854] 1968: 90)

- kɛ*rɛ *bɛ* *kí*- *ro*.
 (deer COP sleep-in)
 'The deer was sleeping.'
á *wɛ* *fɛn* *dón-do* (< *-ro*).
 (3:SG COP thing eat-in)
 'He was eating something.'

Vai *-ro* 'in', nominal suffix > *-ro*, durative, iterative marker, verbal suffix. Ex.

Vai (Koelle [1854] 1968: 88-9)

- í* *ná*- *ro!*
 (2:SG come- DUR)
 'Come again!'
nā *káie* *ma* *ndíā*- *ro*
 (1:SG:POSS husband NEG 1:SG:OBJ:love-DUR)
 'My husband likes me no more.'

Lezgian *-a/-e* inessive case marker 'in', 'into', nominal suffix > marker of duration (Haspelmath 1993: 103).

This grammaticalization appears to be an instance of a more general process whereby grammatical aspect functions are conceptualized and expressed in terms of locative concepts; compare **LOCATIVE**.

IN (SPATIAL) > (2) TEMPORAL

Vai *-ro* 'in', nominal suffix > 'during', 'in', temporal marker. Ex.

Vai (Koelle [1854] 1968: 88–9)

- (a) *ánu* *bę* *sándşā-* *ro.*
 (3:PL COP town- in)
 'They were in the town.'
- (b) *an'* *şáma* *súyē-ro.*
 (3:SG lie:3:SG:ON night-in)
 'He may lie on it in the night.'

Lezgian *-e/-a* inessive case marker 'in', 'into', nominal suffix > temporal marker 'in', 'at', nominal suffix. Ex.

Lezgian (Haspelmath 1993: 102ff.)

- (a) *Daxdi* *wiči-* *n* *żibind-* *a*
 dad(ERG) self- GEN pocket- INE
muk'rat' *tu-* *na.*
 scissors put- AOR
 'Dad put a pair of scissors into his pocket.'
- (b) *Zun* *şaz-* *ni* *sentjabrdi-* *n* *exird-a*
 1:ABS last.year-too September- GEN end- INE
Xivd- *a* *xâ-* *na.*
 Xiv- INE be- AOR
 'Last year, too, I was in Xiv at the end of September.'

The Basque locative case suffix *-n* 'in', 'at', 'on' is also routinely used with a temporal sense. Ex.

Basque (anonymous reader)

- (a) *Bilbo-* *n*
 Bilbao- LOC
 'in Bilbao'
- (b) *negu-* *a-* *n*
 winter- DET- LOC
 'in the winter'

The evolution from locative to temporal IN is so widespread that these examples are merely meant to illustrate the process concerned. It is an instance of a more general process whereby spatial concepts, including motion in space, are

used as structural templates to express temporal concepts; see also **ABLATIVE**; **ALLATIVE**; **BEHIND**; **FRONT**; **INTERIOR**; **LOCATIVE**.

INDEFINITE > COMMON

Nama 'i indefinite article > marker of common gender (*genus commune*; Heine and Reh 1984: 227). Greenberg (1978: 79), who discusses this process, also mentions Chinook and Khasi as further examples.

We are listing this case only tentatively; more information is required on the exact nature and cross-linguistic significance of the process concerned.

INSTRUMENT > (1) ERGATIVE

Markers for ergative case roles do not infrequently encode other case functions as well, in particular instrumental, locative, and genitival functions (cf. Blake 1994: 122), and in some languages there is evidence to suggest that the former are historically derived from the latter. This is perhaps most obvious in the case of ergative/instrumental polysemies. The Hittite ergative suffix *-anza* (PL *-anteš*), used with nouns of the neuter gender, is presumably derived from the ablative/instrumental inflection *-anza* (Garrett 1990; Dixon 1994: 187–8). Similarly, in Sanskrit and other ancient languages of the Indic branch, an erstwhile instrumental inflection, which had also been used to mark the agent in a passive construction, took an ergative function in the perfect (see Dixon 1994: 190 for references). Note further that in Avar, the instrumental case marker also denotes the ergative (Blake 1994: 122). More data are required to substantiate that we are dealing with a unidirectional grammaticalization process.³⁴

INSTRUMENT > (2) MANNER

German *mit* 'with', comitative and instrument preposition > manner preposition. Ex.

German

| | | | | |
|----------------------------------|---------------|------------|------------|------------|
| (a) <i>Sie</i> | <i>schlug</i> | <i>ihn</i> | <i>mit</i> | <i>dem</i> |
| 3:F:SG | hit | 3:M:SG:OBJ | with | DEF:DAT |
| <i>Schirm.</i> | | | | |
| umbrella | | | | |
| 'She hit him with her umbrella.' | | | | |

³⁴ There is a possible source of confusion here. It appears to be well established that languages showing accusative properties may replace these by an ergative profile, and vice versa; hence, there is no directionality involved in such evolutions (Dixon 1994: 185). This observation is in no way at variance with the present hypothesis, which is related to the evolution of ergative case markers rather than to that of ergative constructions. While the former seems to conform to common principles of grammaticalization, since it concerns form-meaning units rather than syntactic structures, the evolution of constructions does not exhibit any significant correlation with unidirectionality, as has been shown convincingly by Harris and Campbell (1995).

- (b) *Sie* *schlug* *ihn* *mit* *Absicht.*
 3:F:SG hit 3:M:SG:OBJ with purpose
 ‘She hit him on purpose.’

The Basque instrumental marker *-z* also serves to express manner. Ex.

Basque (anonymous reader)

- (a) *Luma-* *z* *idatzi* *d-* *u.*
 pen- INSTR write[PFV] PRES-AUX
 ‘He wrote it with a pen.’
- (b) *Barre-* *z* *egin* *d-* *u.*
 laughter- INSTR do[PFV] PRES- AUX
 ‘He did it laughingly.’

Ewe *kplé* ‘with’, instrument preposition > manner preposition (Lord 1989: 126–8). Ex.

Ewe (Claudi and Heine 1986: 321)

- é-* *wɔ* *dɔ* *kplé* *dzidzɔ.*
 3:SG-do work with happiness
 ‘She worked happily.’

Fon *kpôdô* . . . *kpan* comitative, instrument adposition > manner adposition (Lord 1989: 128–9). Ga *kê* ‘with’, comitative, instrument marker > manner marker (cf. Lord 1989: 117ff.). Yoruba *kpèlú* ‘with’, instrument marker > manner marker. Ex.

Yoruba (Lord 1989: 122–3)

- (a) *ó* *gé* *erā* *kpèlú* *òbè.*
 he cut meat with knife
 ‘He cut the meat with a knife.’
- (b) *ó* *gé* *erā* *kpèlú* *èsò.*
 he cut meat with care
 ‘He cut the meat with care.’

This appears to be a process whereby the use of grammatical markers associated with visible, tangible complements (instruments) is extended to abstract complements, thereby giving rise to a new grammatical function. See Heine et al. 1991. Not uncommonly, INSTRUMENT markers appear to be derived from comitative markers; hence, there is a more extended pathway: COMITATIVE > INSTRUMENT > MANNER (see Heine et al. 1991); see also COMITATIVE.

INTENSIVE-REFL > (1) EVEN

French *même* ‘oneself’, intensive reflexive marker > scalar focus particle ‘even’. Dutch *zelfs*, Norwegian *selv*, German *selbst* intensive reflexive or reflexive pronoun ‘oneself’ > ‘even’. Ex.

German

- (a) *Er selbst kommt.*
 he himself comes
 'He himself will come.'
- (b) *Selbst wenn er kommt. . .*
 even if he comes
 'Even if he comes. . .'

While we have so far found only examples from Indo-European languages, we have nevertheless decided to include this case since it appears to be conceptually plausible. More research is required on the exact nature and the genetic and areal distribution of this process, and on the question of whether 'even' really is a grammaticalized use or else a constituent part of the meaning of intensive reflexives (cf. König and Siemund 2000; Emkow 2001).

INTENSIVE-REFL > (2) REFLEXIVE

Ibibio *ídém* ('body' >) emphatic reflexive > reflexive marker. Ex.

Ibibio (Essien 1982: 103, 107)

- (a) *ímé ké ídém ámò*
 (Ime ? body his)
 'Ime himself'
- (b) *ímé àmà átígha idem (ámò).*
 (Ime ? shot body his)
 'Ime shot himself.'

See Faltz [1977] 1985; Kemmer 1993; Heine 2000b; König and Siemund (2000) for more details. Intensive reflexive markers appear to be one of the main sources for reflexives; see also **BODY**; **HEAD**.

INTERIOR > (1) IN (SPATIAL)

Basque *barru*, *barne* 'interior' is used to express 'inside' when used with a locative case suffix. Ex.

Basque (anonymous reader)

- (a) *etxe- a- (r)en barru- a*
 house- DET-GEN interior- DET
 'the interior of the house'
- (b) *Etxe- a- (r)en barru- ra korritu*
 house- DET-GEN interior- ALL run[PFV]
d- u.
 PRES-AUX
 'He ran inside the house.'

Kpelle *su* 'interior' > 'in', postposition (Westermann 1924: 12). Susu *kui* 'interior', 'inner side' > 'in', 'to', postposition. Ex.

Susu (Friedländer 1974: 40)

bankhi kui

‘in the house’

Turkish *iç* ‘interior’, noun > ‘in’, postposition (Lewis [1967] 1985: 90–91). Tamil *uḷ* ‘interiority’ + *ee* (clitic) > *uḷlee* ‘inside’, locative adverb (T. Lehmann 1989: 137). Compare also Latin *pēnus* ‘interior of house’, ‘provisions’, ‘victuals’ > *pēnēs* (a form of *penus*) ‘at’, ‘on the side of’ (Kühner and Holzweissig [1912] 1966: 935).

We are dealing here with another instance of a more general process whereby relational nouns, including nouns for body parts, give rise to relational (typically spatial or temporal) grammatical markers; compare **BOTTOM**; **SIDE**; **TOP**.

INTERIOR > (2) TEMPORAL

Tamil *uḷ* ‘interiority’, relational noun > ‘within’, temporal postposition. Ex.

Tamil (T. Lehmann 1989: 126)

| | | | | | |
|-----------------|-------------|-----------------------|---------------|------------------|-----------|
| <i>kumaar</i> | <i>inta</i> | <i>vaara-ttu- kk-</i> | <i>uḷ</i> | <i>veelai-y-</i> | <i>ai</i> |
| Kumar | this | week-OBL-DAT-within | | work- | ACC |
| <i>muṭi-kk-</i> | <i>a</i> | <i>veeṇṭ-</i> | <i>um</i> | | |
| finish- | INF | must- | FUT:3;SG:NEUT | | |

‘Kumar has to finish the work within this week.’

Other instances of this grammaticalization are easy to come by; we are dealing here with another instance of a more general process whereby relational nouns (including nouns for body parts) give rise to spatial and subsequently also to temporal grammatical markers; compare **INTERIOR > IN (SPATIAL)**. At the same time, this is also an instance of a more general process whereby spatial concepts, including motion in space, are used as structural templates to express temporal concepts; see also **ABLATIVE**; **ALLATIVE**; **BEHIND**; **FRONT**; **IN**; **LOCATIVE**.

‘Intestines’ see **BOWELS**

ITERATIVE > (1) HABITUAL

In the worldwide sample of Bybee et al. 1994: 158–9 there are six languages having a marker to indicate both iterative action and habitual. In the case of the iterative the action is repeated on the same occasion, while habitual means that the different occurrences are on separate occasions. These languages are Atchin, Halia, Inuit, Krongo, Rukai, and Yessan-Mayo. These authors argue that iterative is the earlier meaning, while habitual results from an extension of the iterative, especially for the following reasons. Two languages of their sample, Trukese and Rukai, express the iterative/habitual polysemy by means

of partial reduplication, and the authors observe that iterative is the earliest aspectual meaning of reduplication; hence, iterative is more likely to be the earlier form. Furthermore, they note: "Such a generalization is conceptually well motivated. Iterative means that an action is repeated on a single occasion. In order to include habitual, the only change necessary is the loss of restriction that the repetition be on a single occasion" (see Bybee et al. 1994: 159 for more details).

ITERATIVE > (2) STILL

Ket (isolate) *haj* 'again' > *hy* 'still' (van Baar 1997: 92). Usan *bo* 'again', 'still' (van Baar 1997: 92). Ewe *-ga-*, verbal iterative prefix > 'still' (van Baar 1997: 92). Maltese *għad-* 'still' is said to be derived from a verb meaning 'to repeat' (van Baar 1997: 92). Tayo CF *akor* 'again' > 'still'. Ex.

Tayo CF (Kihm 1995: 239)

- (a) *Ta* *fini* *vja* *jer,* *ta* *vja*
 thou CPL come yesterday thou come
akor *dema.*
 again tomorrow
 'You came yesterday; you'll come again tomorrow.'
- (b) *Tle* *fler-* *la,* *le* *fini* *puse* *e*
 PL flower-DEF TAM CPL grow and
pi *sa* *atra-de* *puse* *akor.*
 then they PROG grow still
 'The flowers have been growing, and they are still growing.'

It would seem that the STILL-meaning arises when, instead of a repetition, the situation implies a duration that is longer than expected.

K

KEEP ('to keep (on)', 'to hold') > (1) CONTINUOUS

Icelandic *halda* 'to hold', verb > *halda áfram að* + INF 'to continue to' (Kress 1982: 244). Swedish *hålla på att* 'hold' > progressive aspect marker (Blansitt 1975: 7). Ex.

Swedish (Lena Ekberg, personal communication)

- Jag* *håller* *på* *att* *läsa* *en*
 I hold:PRES on to read an
spännande *bok.*
 exciting book
 'I am reading an exciting book.'

Imonda *ula* 'to hold' > durative/intensity marker with durative verbs. Ex.

Imonda (Seiler 1985: 106)

- (a) *ablō ka- fa ne- i- ula-*
 crab 1- TOP CLASS- LNK- hold-
fna.

PROG

'I was holding a crab.'

- (b) *na sne- ula- n- b òkōba-na pe- m*
 sago pound-hold-PAST-DUR SUN- POSS fear-CAU
ha- pia.

MO-COME

'I was pounding sago and then came back because of the scorching sun.'

Imonda *ula* 'to hold' > iterative marker with punctual verbs. Ex.*Imonda* (Seiler 1985: 106)

- (a) *ablō ka-fa ne- i- ula- fna.*
 crab 1- TOP CLASS-LNK-hold-PROG

'I was holding a crab.'

- (b) *abof-m anuō-l- m ka bō- uōl fe- ula- fna.*
 fly- GL often-NOMIN-GL 1 kill-PL do-hold-PROG

'I was killing lots of flies.'

Waata, dialect of Oromo, (*harka*) *k'awa* 'hold (in one's hand)', verb > continuous aspect marker, auxiliary. Ex.*Waata, dialect of Oromo* (Stroemer 1987: 149)

utaal-ca harka k'aw- a.
 run- NOMIN hand hold/have-3:M:SG:PRES

'He is running.'

English *keep* + *-ing* > durative marker; for example, *He keeps (on) signaling to me* (Hopper 1991: 23). Somali **hayn* 'keep' > auxiliary of durative aspect. Ex.*Muduug, dialect of Somali* (Heine and Reh 1984: 124)

kari- n ħay- s- ay.
 cook-INF keep-you-PAST

'You kept cooking.'

This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare **BEGIN**; **COME FROM**; **COME TO**; **DO**; **FINISH**; **GO TO**; **LEAVE**; **PUT**.

KEEP ('to keep (on)', 'to hold') > (2) H-POSSESSIVE

Catalan *tener* 'hold', 'keep' (< Old Catalan *tenir*) > 'have', 'own' (Steinkrüger 1997). Basque *eduki* formerly meant 'hold', 'hold in one's hand', 'grasp', and it still does in the east. In the west, it has become the ordinary verb 'have'. Ex.

Eastern Basque (anonymous reader; King 1994: 407)

- (a) *Eduk- ak eure athe- a herts- (r)ik.*
 keep- IMP your door- DET closed- ADVL
 'Keep your door closed.'

Western Basque (anonymous reader; King 1994: 407)

- (b) *Zenbat anai- arreba d- au-*
 how:many brother- sister PRES-have[DISC]-
z- ka- zu?
 PL-2:SG-ERG
 'How many brothers and sisters do you have?'

This process is presumably part of the (>) TAKE > H-POSSESSIVE grammaticalization; until it has been established that this is so, we list this as a separate process. For more details, see Heine 1997a.

KNOW > (1) ABILITY

As Bybee et al. (1994) have shown, markers for mental ability may further develop into markers expressing also physical ability; for example, *English I know how to shoot a crossbow*. Motu *diba* 'know' > 'can', 'be able', marker of physical and mental ability (Bybee et al. 1994: 190). English *know* > *know how to*, marker of mental ability; for example, *I know how to speak French* (Bybee et al. 1994: 190). Baluchi *zən* 'to know how to' (auxiliary + infinitive) > marker of mental ability (Bybee et al. 1994: 190). Danish *kunne* 'know' > mental ability (Bybee et al. 1994: 190). Nung *sha* 'know', auxiliary > mental ability (Bybee et al. 1994: 190). Sango *hinga* 'know', verb > 'can', ability marker (Thornell 1997: 122). Tok Pisin PE *save* 'know' > 'be skilled at'. Ex.

Tok Pisin PE (Aitchison 1996: 141)

mi save kukim kaukau.

I know to:cook sweet:potato

'I know how to cook sweet potato' / 'I am skilled at cooking sweet potato.'

French *connaître* 'know' > Tayo CF *kone* 'be able', marker of physical ability. Ex.

Tayo CF (Kihm 1995: 239)

La fini kone parle kom nu.

s/he CPL know speak like we

'S/He can speak like us now.'

Markers for physical ability may further develop into PERMISSIVE and POSSIBILITY markers; see ABILITY.

KNOW > (2) HABITUAL

Moré *mi* 'know', verb > auxiliary marking habitual actions. Ex.

Moré (Alexandre 1953b: 251)

- (a) *f ka mi fwi.*
 ‘You know nothing.’
- (b) *a mi n lōda ka.*
 ‘He usually passes here.’

See Hagège 1993: 221 for more details. In pidgin and creole languages there appears to be a fairly common grammaticalization: KNOW > ABILITY > HABITUAL. French *connaître* ‘know’ > Haitian CF *kônê* ‘know’ > *kôn* ‘be in the habit of’. Ex.

Haitian CF (Hall 1953: 30, 33)

- (a) *m- pa- t- kônê.*
 (1:SG-NEG-PAST-know)
 ‘I didn’t know.’
- (b) *li kôn bat mwê.*
 (s/he HAB beat me)
 ‘S/He used to beat me.’

Dutch *kunnen* ‘be able’ > Negerhollands CD *kan*, habitual auxiliary. Ex.

Negerhollands CD (Stolz 1987b: 175)

| | | | | | |
|---------------|-----------|-----------|--------------|------------|-----------|
| <i>En</i> | <i>am</i> | <i>a</i> | <i>kan</i> | <i>dif</i> | <i>də</i> |
| and | he | PAST | HAB | steal | the |
| <i>blangu</i> | | <i>ši</i> | <i>skun.</i> | | |
| white:man | | his | turkey | | |

‘And he used to steal the white people’s turkeys.’

One lexical source, though not the only one, can be traced back to Portuguese *saber*, which not only means ‘know’ but also ‘be able to do’ (Holm 1988: 160): Papiamentu CS *sa* ‘know’ (< Portuguese or Spanish *saber* ‘know’) > ‘to do habitually’. Ex.

Papiamentu CS (Holm 1988: 160)

| | | | |
|--------------|-----------|--------------|---------------|
| <i>Maria</i> | <i>sa</i> | <i>bende</i> | <i>piská.</i> |
| (Maria | HAB | sell | fish) |

‘Mary sells fish.’

Sranan CE *sabi*, *sa* ‘know how’, ‘be able’ > habitual uses; Cameroonian PE *sabi* ‘know how to do’ > habitual marker (Holm 1988: 160–1); Tok Pisin PE *save* ‘know’ > *save*, *sa* ‘be accustomed to’. Ex.

Tok Pisin PE (Aitchison 1996: 141–2)

- (a) *mi no save tumas long kukim.*
 I not know much about to:cook
 ‘I don’t know much about cooking.’

- (b) *mi* *sa* *kukim* *long* *paia*.
 I am:accustomed to:cook on fire
 'I customarily cook it on the fire.'

L

LACK ('to lack', 'to lose') > NEGATION

Archaic Chinese *WU* 'lack' > *WU*, negative marker; Archaic Chinese *WANG* 'lack' > negative marker (Alain Peyraube, personal communication). Bemba *-bula* 'lack', 'miss', negative/implicative verb > negation marker in counterfactual conditionals. Ex.

Bemba (Givón 1973: 917)

à-ba-bulaa-bomba. . . .

'Had they not worked. . . .'

Futa Toro, dialect of Fulfulde, *waas* 'lack', 'lose' > negation marker in focus constructions. Ex.

Fulfulde (Marchese 1986: 181)

- (a) *o* *waas-ii* *debbo* *makko*.
 he lose- TNS woman his
 'He has lost his wife.'

- (b) *ko* *miin* *waas-i* *am- de*.
 FOC me NEG- TNS dance-INF
 'It's me who did not dance.'

See Givón 1979a: 222 and Marchese (1986: 189–91). More research is required on the exact nature and the genetic and areal distribution of this process. Nevertheless, this appears to be an instance of a more general process whereby a verb, on account of some salient semantic property ("implied absence"), gives rise to a grammatical marker highlighting that property (negation).

'Land' see EARTH

LEAVE ('to leave', 'to abandon', 'to let') > (1) ABLATIVE

Big Nambas *da-* continuative prefix + *-an* 'leave' > 'from', continuant relator. Ex.

Big Nambas (Fox 1979: 87)

nə- *ma* *d-* *an* *a* *Ləv'iep'*.
 I:REAL- come CONT- leave at Levicamp
 'I have come from Levicamp.'

Kwara'ae *fa'asi* 'leave', 'forsake', 'depart from' = (cognate to) To'aba'ita *fasi*, ablative preposition (Lichtenberk 1991b: 47). Nama *xú* 'leave', 'go away', 'let go', verb > *xú* 'from', 'by', postposition. Ex.

Nama (Krönlein 1889: 52)

- (a) *Tā* *xǔ* *bi. . . .*
 (PROH leave 3:M:SG)
 'Do not let him go. . . .'
- (b) †*Kūiasa* *xú* *ta* *gye* *ti-ta*
 (†*Kūias* from 1:SG TOP 1:SG
ra *hā.*
 IMPFV come)
 'I am coming from Windhoek.'

Tamil *viṭu* 'leave', verb of motion > *viṭ.tu* (participle), postposition marking the ablative case. Ex.

Tamil (T. Lehmann 1989: 131)

kumaar *viṭ-t- ai* *viṭtu* *ooṭ-* *iṅ-* *aan.*
 Kumar house-ACC from run- PAST- 3:M:SG
 'Kumar ran away from home.'

This is an instance of a process whereby process verbs, on account of some salient semantic property, give rise to grammatical markers expressing case relations; compare COME FROM, FOLLOW, GIVE, GO TO, SEE, TAKE. Since ABLATIVE markers are a common source for COMPARATIVE markers (see ABLATIVE), LEAVE verbs may also develop further into COMPARATIVE particles or affixes: Tamil *viṭu* 'leave', verb of motion > *viṭa* (infinitive), postposition marking the standard in comparative constructions. Ex.

Tamil (T. Lehmann 1989: 131)

kumaar *raajaa-v-ai* *viṭa* *uyaram-aaka*
 Kumar Raja- ACC COMPAR height- ADVR
iru-kkir- *aan.*
 be- PRES-3:M:SG
 'Kumar is taller than Raja.'

LEAVE ('to leave', 'to abandon', 'to let') > (2) COMPLETIVE

Kxoe *xǔ* 'leave', 'abandon', 'loosen', verb > *-xu*, terminative/completive derivative suffix. Ex.

Kxoe (Köhler 1981a: 503)

kx'ó- *ró-xu* 'è!
 eat:meat-II-TERM IMP)
 'Finish eating!'

The following example probably also belongs here: Nama *!ari* 'to leave someone', action verb > *!arí* 'totally', 'entirely', 'completely', verbal suffix. Ex.

Nama (Krönlein 1889: 31)

| | | | |
|--------|--------|------|-------|
| !gūuñ- | !ari- | ts | ta? |
| (go- | leave- | 2:SG | PROG) |

'Are you going away completely?'

Tamil *viṭu* 'leave', verb of motion > auxiliary marking the perfective. Ex.

Tamil (T. Lehmann 1989: 209)

| | | | | |
|---------------|-------------|--------------------|--------------|------------|
| <i>kumaar</i> | <i>inta</i> | <i>naaval-ai-p</i> | <i>paṭi-</i> | <i>ttu</i> |
| Kumar | this | novel- ACC | read- | PARTCP |

viṭ-t- aān.
leave:PAST-3:M:SG
'Kumar has read this novel.'

This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare BEGIN; COME FROM; COME TO; DO; FINISH; GO TO; KEEP; PUT.

LEAVE ('to leave', 'to abandon', 'to exit') > (3) EGRESSIVE

Portuguese *deixar* 'let', 'leave', verb > *deixar (de fazer)* ('stop doing'), conclusive auxiliary. Ex.

Portuguese (Schemann and Schemann-Dias 1983: 13–15)

| | | | | | |
|---------------|----------|------------|--------------|-----------------|-----------|
| <i>porque</i> | <i>é</i> | <i>que</i> | <i>agora</i> | <i>deixaste</i> | <i>de</i> |
| why | is | that | now | left:2:SG | to |

o ajudar?
him help:INF
'Why did you stop helping him now?'

Lingala *-tika* 'leave', 'let', verb > egressive marker. Ex.

Lingala (Mufwene and Bokamba 1979: 244–6)

- (a) *Kázi* *a- tik-* *í* *kalási* *na* *yé.*
Kazi he-abandon-PERF school COM him
'Kazi has left/quit school.'
- (b) *Kázi* *a- tik-* *í* *ko-* *koma.*
Kazi he-abandon -PERF INF- write
'Kazi has (just) stopped writing.'

This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare BEGIN; COME FROM; COME TO; DO; FINISH; GO TO; KEEP; PUT.

LEAVE ('to leave', 'to abandon', 'to exit') > (4) HORTATIVE

Lingala *-tika* 'leave', 'let', verb > imperative, hortative auxiliary, where the main verb follows in the subjunctive/optative mood. Ex.

Lingala (van Everbroeck 1969: 141)

| | | | | | |
|--------------|------------|---------------|-----------------|-------------|--------------|
| <i>tíká</i> | <i>tó-</i> | <i>kendé!</i> | <i>tíká</i> | <i>ná-</i> | <i>koma!</i> |
| (leave | 1:PL-go) | | (leave | 1:SG-write) | |
| 'Let us go!' | | | 'Let me write!' | | |

Hausa *barì* 'leave', verb > 'how about', hortative marker (the following verb being in the subjunctive). Ex.

Hausa (Cowan and Schuh 1976: 148)

| | | | |
|-----------------------------------|-----------|--------------|---------------|
| <i>bàri</i> | <i>mù</i> | <i>shìga</i> | <i>zaurè.</i> |
| (let | 1:PL | go:into | entrance:hut) |
| 'Let's go into the entrance hut.' | | | |

Albanian *lë* 'leave', 'let' > hortative marker. Ex.

Albanian (Buchholz et al. 1993: 273)

lë të shkojë!
'Let him go!'

Compare English *Let's go!*. Kenya Pidgin Swahili (PS) *wacha* 'leave', 'let', transitive verb > imperative, hortative marker. Ex.

Kenya PS

- (a) *yeye* *kwisha* *wacha* *kazi.*
3:SG PFV leave work
'He has left work.'
- (b) *wacha* *yeye* *na-* *let-* *ia* *sisi* *biya!*
HORT 3:SG IMPFV-bring-APPL 1:PL beer
'Let him bring us beer!'

Negerhollands CD *laastan*, *lista* 'leave' (< Dutch *laat staan* ('let + stand') 'leave it!'), prohibitive auxiliary > *ta(a)*, hortative particle. Ex.

Negerhollands CD (Stolz 1986: 157, 177)

- (a) *Sinu* *a* *flig,* *lista* *di* *stibu.*
(3:PL PERF flee leave DEF money)
'They fled and left the money (behind).'
- (b) *Ta:* *ons* *lo:* *api* *de* *le* *be:.*
(HORT 1:PL go where DEF light be:LOC)
'Let us go where there is light.'

French *quitter* 'to leave', verb > Haitian CF *kité* 'let', 'allow', verb > *té*, permissive, hortative particle when followed by another verb or verbal phrase as complement. Ex.

Haitian CF (Hall 1953: 30, 55)

| | | | | | |
|-----------------|------------|-------------|---------------------|-----------|--------------|
| <i>té</i> | <i>nou</i> | <i>bwè.</i> | <i>té-</i> | <i>l-</i> | <i>vini.</i> |
| (let | we | drink) | (let-s/he-come) | | |
| 'Let us drink.' | | | 'Let her/him come.' | | |

Occasionally LEAVE verbs give also rise to grammatical concepts having obligation as their focal sense; for example, Nama *!ari* 'to leave someone', action verb > *!ari(-!ari)* 'must', necessity marker. Ex.

Nama (Rust 1969: 29)

| | | | |
|--------------------------|--------------|-----------|------------|
| // <i>nôu-/nam-!ari-</i> | <i>ts</i> | <i>ǵe</i> | <i>nî:</i> |
| (hear-love- | leave-2:M:SG | TOP | FUT) |

'You must obey.' (lit.: 'You must love to hear')

While this case is found commonly in pidgin and creole languages, the evidence available suggests that it nonetheless appears to be a more general process whereby certain verbs assume an interpersonal function in specific contexts involving commands and related interpersonal functions; compare COME > HORTATIVE; GO > HORTATIVE; LEAVE > PERMISSIVE.

LEAVE ('to leave', 'to abandon', 'to let') > (5) NEGATION

Dewoin *se* 'leave', transitive verb > negative auxiliary. Ex.

Dewoin (Marchese 1986: 182)

| | | | |
|----------|------------|-------------|------------|
| <i>õ</i> | <i>séë</i> | <i>sāyè</i> | <i>pī.</i> |
| he | NEG:PERF | meat | cook |

'He has not cooked meat.'

Kagbo *tÁ* 'leave', 'let go', verb > negative auxiliary. Ex.

Kagbo (Marchese 1986: 183)

- (a) *tÁ* *nò* *yí.*
 leave him eyes
 'Let him alone!' / 'Leave him alone!' (lit.: 'Leave his eyes')
- (b) *ɔ* *tÁ* *yí.*
 he NEG come
 'He didn't come.'

Bété *tī* 'leave', 'lose', verb > negative imperative auxiliary. Ex.

Bété (Marchese 1986: 184)

- (a) *ɔ* *tī-* *ɔ* *mÁ.*
 he leave-him there
 'He left him there.'
- (b) *ɔ* *tī-* *ɯ* *síβÁ.*
 he NEG-it build
 'He should not build it.'

See Marchese 1986: 182ff. for more details. This appears to be a case of grammaticalization that is limited in occurrence; more research is required on the genetic and areal distribution of this process, whereby a verb, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; see, for example, DESCEND; FOLLOW; LACK; LIVE; SIT; STAND.

LEAVE verbs may also give rise to markers for negative ABILITY; for example, Shona *-règà* 'leave off', 'omit to act', action verb > *-règò-* 'be not able to', verbal prefix (Brauner 1993: 114). For an unusually large series of grammaticalizations involving the Tamil *viṭu* 'leave', see T. Lehmann 1989: 209ff.

LEAVE ('to leave', 'to abandon', 'to let') > (6) PERMISSIVE

German *lassen* 'leave', 'let', action verb > permissive auxiliary. Ex.

German

(a) *Lass mich allein!*
 leave me alone
 'Leave me alone!'

(b) *Lass ihn kommen.*
 let him come
 'Let him come, allow him to come.'

French *quitter* 'to leave', action verb > Haitian CF *kité* 'let', 'allow', verb > *té*, permissive, hortative particle when followed by another verb or verbal phrase as complement. Ex.

Haitian CF (Hall 1953: 30)

té l- vini.
 (let him-come)
 'Let him come.'

Bulgarian *ostavix* 'leave' > permissive marker. Ex.

Bulgarian

(a) *Az ostavix bagaža na garata.*
 I leave:1:SG:AOR luggage:DEF at station:DEF
 'I left the luggage at the station.'

(b) *Ostavix te da napraviš kaktò*
 leave:1:SG:AOR you to do:2:SG:PRES as
ti iskaše. Zašto si
 you want:2:SG:IMPERF why be:2:SG:PRES
nedovolna sega?
 unsatisfied now
 'I let you do it the way you wanted. Why are you unsatisfied now?'

More research is required on the exact nature and the genetic and areal distribution of this process. This appears to be a process whereby certain verbs assume an interpersonal function in specific contexts involving imperatives and related interpersonal functions; compare COME > HORTATIVE; GO > HORTATIVE.

'Let' see LEAVE

LIE ('to lie (down)') > CONTINUOUS

Yolngu *yukarra-* 'lie', stative verb > marker of durative aspect when used in conjunction with a main verb (Austin 1998: 32). Mandan *wak-Œ* 'abide:lie' >

imperfective or durative marker (Mixco 1997: 61). Cahuilla *-qal-* 'to lie', verb root > *-qal-* durative affix (Seiler 1977: 152; 170f.). Dutch *liggen* 'to lie', verb > durative/habitual auxiliary (with postural connotations) *liggen te* + INF (Stolz 1992b: 292). Tatar *yat-* 'lie down' (preceded by a gerund) > progressive aspect (Blansitt 1975: 28). Tamil *kiṭa* 'lie', stative verb > auxiliary expressing a durative notion. Ex.

Tamil (T. Lehmann 1989: 223)

| | | | | | | |
|-------------|-------------|---------------|------------|--------------|--------------|-------------|
| <i>anta</i> | <i>arai</i> | <i>puuṭṭ-</i> | <i>i-k</i> | <i>kiṭa-</i> | <i>kkir-</i> | <i>atu.</i> |
| that | room | lock- | PARTCP | lie- | PRES- | 3;NEUT:SG |

'The room is kept locked.' (In addition it indicates the speaker's negative attitude toward the state.)

Korean *cappaci-* 'lie' (vulgar),³⁵ verb > progressive auxiliary. Ex.

Korean (Song 2000: 7, 21)

- (a) *ku* *salam-* *i* *pang-* *ey* *cappaci*
 the man- NOM room- LOC lie(vulgar)
 (-e)- *iss-* *ta.*
 (F)- is- IND
 'The man is lying in the room.'
- (b) *ku* *salam-* *un* *pwulpyeng* *ha-* *ko*
 the man- TOP complaint do- CONJ
cappaci- *e-* *iss-* *ta.*
 lie(vulgar)- F- is- IND
 'The man is complaining.'

This pathway is part of a more general process whereby postural verbs ('sit', 'stand', 'lie') are grammaticalized to continuous and other aspectual markers (see Bybee et al. 1994: 153–5; Austin 1998: 32); compare SIT; STAND; see also SIT > HABITUAL. Kuteva (1999, forthc.b) proposes a four-stage grammaticalization development of the bodily posture verbs SIT, STAND, and LIE into CONTINUOUS markers: human bodily posture verbs > canonical encoding of spatial position of objects > CONTINUOUS (with inanimate subjects) > CONTINUOUS (with both inanimate and animate subjects). For an alternative proposal, see Song 2000.

'Like' see LOVE; WANT

LIMIT ('limit', 'boundary') > UNTIL

Swahili *m-paka* 'border', 'boundary', noun > (*m*)*paka* 'until', locative, temporal preposition, temporal clause subordinator. Ex.

³⁵ Song (2000: 6, 32) gives two verbs for 'lie' in Korean: *nwup-* 'lie' (plain) and *cappaci-* 'lie' (vulgar). The plain form expresses a higher degree of control than does the vulgar form. This may be related to the original meaning of the vulgar form *cappaci-*, 'to fall backward (and to sprawl out on one's back)'. Of the two forms, only the latter has been grammaticalized into an aspectual marker.

Swahili

- (a) *m- paka wa Kenya*
 c3- border of Kenya
 'the border of Kenya'
- (b) *mpaka Mombasa mpaka kesho*
 up to Mombasa until tomorrow
 'up to/until Mombasa' 'until tomorrow'

Tamil *varai* 'limit', 'end', relational noun > *varai-kk-um* 'as long as', head noun of an adjectival clause in the form inflected for dative case and followed by the clitic *-um*. Ex.

Tamil (T. Lehmann 1989: 343)

kumaar veelai cey-t- a varai- kk- um
 Kumar work do-PAST-ADJV end- DAT-INCL
naan
 1:SG
kaattiru-nt- een.
 wait- PAST-1:SG
 'As long as Kumar worked, I was waiting.'

Tamil *varai* 'limit', 'end', relational noun > 'until', temporal postposition. Ex.

Tamil (T. Lehmann 1989: 121)

kumaar aintu manī varai tuuñik- in- aan.
 Kumar five hour until sleep- PAST- 3:M:SG
 'Kumar slept until five o' clock.'

This is an instance of a more general process whereby a noun, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; see also EARTH; FIELD; FOOTPRINT; SKY.

LIP (body part) > LOCATIVE

Colonial Quiché *chi* 'lip', 'edge' > *chi* (sometimes *ch*, mostly before vowels) 'in', 'within'; 'into'; 'out of', general indicator of locative usage of noun phrases. Ex.

Colonial Quiché (Dürr 1988: 52)

ta x- e- pet- ic chi tulan.
 CONP CPL-3:PL:ABS- come-IS LOC Tulan
 'They came from Tulan.'

Compare also Colonial Quiché *chi* 'lip', 'edge' > 'at the edge of', locative adposition. Ex.

Colonial Quiché (Dürr 1988: 55)

anim x- e- be-c,
 quick CPL-3:PL:ABS-go-IS

| | | | | | | |
|---------------------|-----------|-------------|-------------------|-----------|------------|--------------|
| <i>x-</i> | <i>e-</i> | <i>opon</i> | <i>ch-</i> | <i>u-</i> | <i>chi</i> | <i>choh.</i> |
| CPL-3:PL:ABS-arrive | | | LOC-3:SG:ERG-edge | | | oven |

‘They left quickly and arrived at the edge of the oven.’

Albanian *buzë* ‘lip’, body part noun > *buzës* (lip-DEF:ABL) ‘along’, locative preposition. Ex.

Albanian (Buchholz et al. 1993: 73)

| | | | |
|--------------|-----------|----------------|-----------|
| <i>buzës</i> | <i>së</i> | <i>det-</i> | <i>it</i> |
| (along | ART | ocean-DEF:ABL) | |

‘along the seaside’

This grammaticalization appears to be an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; see also **BACK**; **BELLY**; **BUTTOCKS**; **EYE**; **FACE**; **FLANK**; **HEAD**; **NECK**.

LIVE (‘to live’, ‘to be alive’, ‘to stay’) > (1) CONTINUOUS

Kisi *wa* ‘remain’, ‘stay’, ‘be’, verb > past progressive marker. Ex.

Kisi (Childs 1995: 233, 244)

- a) *ò* *wá* *náá* *kòòlì.*
 he was us behind
 ‘He was behind us.’
- b) *ò* *wá* *wajndá* *kùndìkùndìó.*
 he AUX people hit
 ‘He was striking the people.’

Kikuyu *-tũũra* ‘live’, ‘exist’, verb > auxiliary marking continuous, durative actions. Ex.

Kikuyu (Barlow 1960: 268)

| | | | | | | | | |
|---------------|------------|-------------|--------------|-----------|-------------|------------|-----------|-------------|
| <i>i-</i> | <i>ti-</i> | <i>ngĩ-</i> | <i>tũũra</i> | <i>i-</i> | <i>nor-</i> | <i>ete</i> | <i>ũ-</i> | <i>guo.</i> |
| (C10-NEG-FUT- | | live | | C10- | be:fat-PERF | | C14-PRON) | |

‘They (the cattle) will not remain fat like that.’

Aztec *nemi* ‘to live’ > *nemi* ‘to do incessantly’, (excessive) continuous auxiliary. Ex.

Aztec (Launey 1979: 256).

| | | | | |
|--------------|--------------|-----------|------------------|--------------|
| <i>Tlein</i> | <i>ti-</i> | <i>c-</i> | <i>chĩuh-ti-</i> | <i>nemi?</i> |
| (INTER | 2:SG-OBJ-do- | | LIG-CONT) | |

‘What are you doing there all the time?’

Burmese *ne* ‘stay’ > progressive auxiliary (Park 1992: 16). According to Matisoff (1991), verbs meaning ‘dwell’, ‘be in/at a place’ can sometimes function in languages of Southeast Asia as locative prepositions and typically develop into progressive auxiliaries (Lord 1993: 17).

English *live* (+ *for*), verb > West African PE (nineteenth and early twentieth centuries) *live for* progressive/habitual ("nonpunctual") marker. Ex.

West African PE (nineteenth and early twentieth centuries; Huber 1996)

- (a) *him* *live*.
 3:SG COP
 'He is here.'
- (b) *me* *live for* *take*.
 1:SG PROG take
 'I am taking.'

The (a) sentence appears to represent an intermediate stage where *live* served as a locative/existential copula. Tok Pisin PE *stap* (< Engl. *stop*) 'stay' > continuous or durative actions. Ex.

Tok Pisin PE (Sankoff 1979: 44–5)

- (a) *na* *em* *wanpela* *istap* *long* *haus*
 (and he alone stay at home
 ah, . . .
 uh)
 'and he alone stayed home uh, . . .'
- (b) *Ol* *kaikai* *istap* *nau,* *disfela*
 (they eat stay ? this
 meri *go* *insait*.
 woman go inside)
 'While they were eating, this woman went inside.'

Compare REMAIN.

LIVE ('to live', 'to be alive', 'to stay') > (2) HABITUAL

LIVE-verbs give rise to CONTINUOUS markers that can acquire an HABITUAL function, as may have happened in Ewe: *nɔ* 'be', 'stay', 'remain' > *-na* (after intransitive, *-a* after transitive verbs) > habitual aspect marker. Ewe of Benin *nɔ* 'be', 'stay', 'remain' > *nɔ-*, habitual aspect marker (Westermann 1907: 65). Ex.

Ewe of Benin

- m- nɔ- sa*.
 1:SG-stay-sell
 'I sell (habitually).'

English *live* (+ *for*), verb > West African PE (nineteenth and early twentieth centuries) *live for* progressive/habitual ("nonpunctual") marker (Huber 1996). Bybee et al. (1994: 154) observe that verbs meaning 'to live' may serve as sources for habitual auxiliaries, but more research is required on this pathway. Compare GO; REMAIN; SIT; USE.

LIVE ('to live', 'to be alive', 'to stay') > (3) LOCATIVE COPULA

Basque *egon* means historically 'wait', 'stay'. Otherwise, especially in the western varieties, it has become a locative copula 'be (in a place or a state)'. Ex.

Basque (anonymous reader; King 1994: 396–7)

| | | | | |
|--------------|-----------------|----------|------------|------------|
| <i>Bilbo</i> | <i>Bizkaia-</i> | <i>n</i> | <i>da-</i> | <i>go.</i> |
| Bilbao | Vizcaya- | LOC | PRES- | be |

'Bilbao is in Vizcaya.'

Compare also Proto-Germanic **wes-* 'live' > English *was*, German *war* 'was, were' (Lehmann 1982: 27). Tunica *ʔúhki* 'he lives' > 'he is' (Haas 1941: 41ff.; quoted from Lehmann 1982: 27). Note also that according to Matisoff 1991, verbs meaning 'dwell', 'be in/at a place' can sometimes function as locative prepositions in languages of Southeast Asia (Lord 1993: 17).

More examples are required to substantiate this pathway, which appears to be an instance of a process whereby a verb, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property, in this case a copular function; compare, for example, **CROSS**; **EXCEED**; **FINISH**; **PASS**; **SIT**; **STAND**.

LIVE ('to live', 'to be alive', 'to stay') > (4) EXIST

English *live*, verb > West African PE (nineteenth and early twentieth centuries) *live*, locative/existential copula. Ex.

West African PE (nineteenth and early twentieth centuries; Huber 1996)

no live

'is not' / 'there is not' / 'he is not there'

While so far only few examples have been found, this appears to be an instance of a more widespread process whereby a verb, on account of some salient semantic property ('be alive'), gives rise to a grammatical marker highlighting that property ('exist'). Compare **LOCATIVE**; **COPULA**; **LOCATIVE > H-POSSESSIVE**.

LIVER (body part) > LOCATIVE

Ngbandi *bé* 'liver', noun > '(in the) middle', (spatial) relational noun. Ex.

Ngbandi (Lekens 1958: 47; Helma Pasch, personal communication)

| | | |
|------------|-----------|-----------|
| <i>ndó</i> | <i>bé</i> | <i>da</i> |
| place | liver | house |

'in the middle of the house'

Mixe-Zoque **paʔ-t* 'liver' > Lowland Mixe *-paʔt* 'underneath', nominal suffix (Wichmann 1993: 53–54). Eastern Basque *gibel* 'liver' is commonly used to construct postpositions meaning 'behind' (lit.: 'at my liver', etc.). Ex.

Eastern Basque (anonymous reader)

| | | | | |
|---------------|-----------|--------------|---------------|--------------|
| <i>mendi-</i> | <i>a-</i> | <i>(r)en</i> | <i>gibel-</i> | <i>(e)an</i> |
| mountain- | DET- | GEN | liver- | LOC |

'behind the mountain'

The Proto-Bantu noun **-ini* 'liver' appears to have given rise to an inessive marker **-ini* 'in(side)', and eventually to a general locative suffix in many eastern and southern Bantu languages, such as Swahili, Pokomo, Lomwe, or Tswana (Samson and Schadeberg 1994; Güldemann 1999b: 51–3). This grammaticalization appears to be part of a more general process whereby body parts, on account of their relative location, serve as conceptual templates for spatial orientation; see, for example, **BACK**; **BELLY**; **EYE**; **FACE**; **FLANK**; **FOOT**; **HEAD**; **HEART**; **NECK**. What is remarkable about this particular source concept is that, unlike other body parts, it appears to have given rise to a number of different spatial notions. The primary target, however, is the locative notion 'in'; Bowden (1992: 36), for example, found five Oceanic languages where terms for 'liver' have given rise to IN-markers.

LOCATIVE > (1) AGENT

Old Chinese *yu* 'at', locative adposition³⁶ > agent marker in passive constructions. Ex.

Old Chinese (Mencius; adopted from Alain Peyraube, personal communication)

- (a) *Xue yu zhong guo.*
 learn at central state
 '(He) learned (it) in the Central States.'

Old Chinese (Liji; quoted from Sun 1996: 25)

- (b) *xizhe wu jiu si yu hu.*
 yesterday my father:in:law die by tiger
 'Yesterday my father-in-law was killed by a tiger.'

Albanian *prej* 'at', locative preposition > preposition marking the agent of an action. Ex.

Albanian (Buchholz et al. 1993: 441)

- shkruar prej meje*
 (PARTCP:write by 1:SG:ABL)
 'written by me'

Jeri *munu* adessive or possessive postposition (used with animate nouns only) > agent marker in passive constructions. Ex.

Jeri (Tröbs 1998: 126–7)

- (a) *dio do da nbe Awa munu. . .*
 child INDEF TOP:COP TAM Awa POST
 'There was a small child with Awa. . .'

³⁶ The meaning of *yu* includes incorporated location, source, and goal in Old Chinese; that is, *yu* appears to have been a more general multipurpose locative marker (see Sun 1996: 25).

- (b) *dio wa kɛli do munu.*
 child CRS call INDEF POST
 ‘The child was called by somebody.’

Luba *kù-dì* ‘there (where) is’ > agent marker in passive constructions. Ex.

Luba (Heine and Reh 1984: 99)

- bà- sùm- ìne mu-âna kù- dì nyòka.*
 they-bite- PERF C1-child there:where-is snake
 ‘The child has been bitten by a snake.’

Perhaps related to this process is Turkish *taraf* ‘side’, which, when having the possessed marker *-in* and the ablative marker *-dan* on it – *tarafından* – is a common agent marker in passive sentences. Ex.

Turkish (anonymous reader; Lewis [1967] 1985: 93)

- kardes- i taraf- in- dan uzaklas-*
 brother-his side- POSS-ABL go:away-
tir- il- di.
 CAUS- PASS-PAST
 ‘He was sent away by his brother.’

This appears to be an instance of a more general process whereby locative markers assume the function of marking clause participants; compare **LOCATIVE > CAUSE**; **LOCATIVE > COMPARATIVE**; **LOCATIVE > CONCERN**; **LOCATIVE > TEMPORAL**.

LOCATIVE > (2) CAUSE

Imonda *-ia* locative marker > cause marker ‘because’. Ex.

Imonda (Seiler 1985: 71f)

- (a) *ièf- ia*
 house-LOC
 ‘at the house’
- (b) *Bob-na- ia adeia sě e- fe- i- me.*
 Bob-POSS-because work NEG DU-do-PAST-NEG
 ‘We did not do any work because of Bob.’

Albanian *prej* ‘at’ (locative preposition) > preposition marking reason. Ex.

Albanian (Buchholz et al. 1993: 441)

- dridhet prej sě ftohti.*
 (shiver.3:SG:PRES from ART cold)
 ‘He shivers from cold.’

This appears to be an extremely widespread process whereby locative markers are grammaticalized to markers of cause; concerning English examples, see Radden 1985.

LOCATIVE > (3) COMPARATIVE

Old Chinese *yu* ‘at’, locative adposition³⁷ > marker of standard of comparison. Ex.

Archaic Chinese (Peyraube 1989b)

| | | | | | |
|-----------|------------|-----------|-----------|-------------|--------------|
| <i>Ji</i> | <i>shi</i> | <i>fu</i> | <i>yu</i> | <i>Zhou</i> | <i>gong.</i> |
| Ji | family | rich | more:than | Zhou | Duke |

‘The Ji family was richer than the Duke of Zhou.’

See also Peyraube 1990. Naga *ki* ‘on’ > comparative marker.³⁸ Ex.

Naga, Sino-Tibetan (Stassen 1985: 147)

| | | | | | |
|---------------|------------|-----------|-----------|------------|------------|
| <i>Themma</i> | <i>hau</i> | <i>lu</i> | <i>ki</i> | <i>vi-</i> | <i>we.</i> |
| man | this | that | on | good- | is |

‘This man is better than that man.’

Hungarian (Heine 1997b: 114)

| | | | |
|--------------|----------------|----------------|-------------|
| <i>János</i> | <i>nagyobb</i> | <i>József-</i> | <i>nál.</i> |
| John | bigger | Joseph- | at |

‘John is bigger than Joseph.’

See Stassen 1985 and Heine 1997b: 114–15 for this common process, whereby locative markers are grammaticalized to introduce the standard of comparison. This appears to be a more general process according to which grammatical markers having a spatial base serve as conceptual templates for comparative markers; see ABLATIVE; UP. This pathway also appears to be suggestive of a process whereby locative markers assume the function of marking clause participants; compare LOCATIVE > AGENT, LOCATIVE > CONCERN, LOCATIVE > TEMPORAL.

LOCATIVE > (4) CONCERN

Markers used to express concern have (>) UP markers as one of their primary sources. It would seem, however, that in addition to this locative concept, other kinds of locative markers may be grammaticalized to CONCERN markers. Thus, in Silacayoapan, the noun *sàʔà* or *šàʔà* ‘foot’ has given rise to a locative marker ‘bottom of’, whose use appears to have been extended to also express concern. Ex.

Silacayoapan (Shields 1988: 318; quoted from Hollenbach 1995: 180)

| | | | | |
|-----------------|------------|-------------|------------|-------------|
| <i>ndítúʔún</i> | <i>ndè</i> | <i>sàʔà</i> | <i>ñuu</i> | <i>ndè.</i> |
| discuss | we:EXCL | foot | town | our:EXCL |

‘We are talking about our town.’

³⁷ The meaning of *yu* includes incorporated location, source, and goal in Old Chinese; that is, *yu* appears to have been a more general multipurpose locative marker (cf. Sun 1996: 25).

³⁸ Alain Peyraube (personal communication) suggests on the basis of the linguistic history of Chinese that there is a more extended chain: DATIVE > LOCATIVE > COMPARATIVE.

Similarly, in Alacatlazala, the etymologically related noun *šàʔà* ‘foot’ seems to have given rise to a marker of concern in specific contexts (see Hollenbach 1995: 181). See also GIVE; UP. More research is required on the conceptual nature and areal distribution of this grammaticalization, which appears to be an instance of a widespread process whereby spatial and temporal markers are grammaticalized in specific contexts to markers of “logical” grammatical relations, such as adversative, causal, concern, concessive, and conditional relations; see, for example, ALLATIVE; SINCE; TEMPORAL; UP.

LOCATIVE > (5) CONTINUOUS

Imonda *-ia*, locative marker > progressive marker; (a) nominal suffix with nouns denoting activity, (b) verbal suffix. Ex.

Imonda (Seiler 1985: 72)

| | | | | |
|---------------------------|-------------|-----------|-------------|-----------|
| <i>tōbtō</i> | <i>soh-</i> | <i>ia</i> | <i>ale-</i> | <i>f.</i> |
| fish | search- | LOC | stay- | PRES |
| ‘He is looking for fish.’ | | | | |

Diola Fogny verbal noun + copula *-em* + locative preposition *di* > progressive construction. Ex.

Diola Fogny (Blansitt 1975: 17)

| | | | | |
|-----------------|------------|-----------|-----------|----------------------------|
| <i>burɔk</i> | <i>nɛn</i> | <i>di</i> | <i>bɔ</i> | <i>(nɛn di < nɛmdi)</i> |
| work | I:am | in | it | |
| ‘I am working.’ | | | | |

Irish *ag* ‘at’ + verbal noun > continuous marker. Ex.

Irish (Blansitt 1975: 19)

| | | | | | |
|----------------------------|-----------|-----------|---------------|-----------|----------------|
| <i>Tá</i> | <i>sé</i> | <i>ag</i> | <i>dúnadh</i> | <i>an</i> | <i>dorais.</i> |
| be | he | at | shutting | the | of:door |
| ‘He is shutting the door.’ | | | | | |

In Chinese, the marker *zhe*, which in Old Chinese was a verb whose meanings included ‘to attach’, appears to have developed into a prepositional locative marker in Middle Chinese and, after stative verbs like *zuo* ‘sit’, may have been a source for durative uses (Sun 1998: 163). In some French-based creoles, it is the locative notion ‘behind’, that is, terms derived from French *après*, which appears to have given rise to CONTINUOUS markers; for example, Seychelles CF (*a*)*pe*, which serves to denote progressive and inchoative events. Ex.

Seychelles CF (Corne 1977: 65)

| | | | | | |
|------------------|------------|--------------|-----------------------|-----------|---------------|
| <i>môti</i> | <i>ape</i> | <i>sâte.</i> | <i>i</i> | <i>pe</i> | <i>malad.</i> |
| (1:SG PAST | APE | sing) | (3:SG | APE | be:sick) |
| ‘I was singing.’ | | | ‘He is getting sick.’ | | |

This grammaticalization appears to be an instance of a more general process whereby grammatical aspect functions are conceptualized and expressed in

terms of locative concepts; compare **NEAR > PROXIMATIVE**. The description of this grammaticalization is, however, somewhat misleading since, more often than not, locative markers constitute but one constituent in the relevant source construction, which typically also involves a copular predicate. There are a number of different locative concepts that give rise to **CONTINUOUS** constructions; for more details, see Heine 1993: 32–3. That locative constructions constitute the primary source for progressives in Atlantic creoles has been shown by Boretzky (1983) and Holm (1988: 154–7), and since progressives may acquire continuous and eventually habitual meanings (see Bybee et al. 1994: 151–3), this very schema can also be held responsible for the fact that instances of the Location Schema (see Heine 1997a) may also (but need not) express habitual functions (cf. Holm 1988: 157ff.).

LOCATIVE > (6) EXIST

Limbu *ya.kma?* ‘to be somewhere’, locative copula > existential copula with locative implications. Ex.

Limbu (van Driem 1987: 63–4)

- (a) *khunε?* *yo.* *ya.k.*
 he below be
 ‘He is below.’
- (b) *yum* *mε-* *ya.k-* *nεn.*
 salt NEG- be- NEG
 ‘There is no salt [in it].’

English

- (a) *Thére is my beer.* (spatial)
 (b) *There is beer at home.* (existential)

Swahili *-ko* locative copula > existential copula when used without a locative argument. Ex.

Swahili

- (a) *Pombe* *yangu* *iko* *nyumba-ni.*
 beer my be:at home- LOC
 ‘My beer is at home.’
- (b) *Pombe* *iko.*
 beer be:at
 ‘There is beer’ / ‘beer exists’

English *there*, adverb > Sranan CE *de(e)* ‘be (somewhere)’, ‘exist’. Ex.

Sranan CE (Boretzky 1983: 158)

- taig* *mi,* *pε* *den* *dε.*
 (tell me where they exist)
 ‘Tell me where they are.’

In many languages this appears to be a context-induced reinterpretation of a locative copula that assumes the function of an existential marker when there is no locative argument. More research is required on the exact nature and the genetic and areal distribution of this process.

LOCATIVE > (7) PERS-PRON

Hagège characterizes the relevant conceptual transfer in the following way: there are “languages which use spatial adverbs with the meaning of personal pronouns: Japanese *kotira* ‘here’ often refers to the speaker, Vietnamese *đây* ‘here’ and *đó* (or *đó*) ‘there’ are used with the meanings ‘I’ and ‘you’ respectively when one wants to avoid the hierarchical or affective connotations linked to the use of personal pronouns. . . .” (Hagège 1993: 216–17). We have so far found no clear instances of grammaticalized categories arising in this way, but see **HERE > PERS-PRON**.

LOCATIVE > (8) A-POSSESSIVE³⁹

Albanian *prej* ‘at’, locative preposition > preposition marking the genitive. Ex. *Albanian* (Buchholz et al. 1993: 441)

| | | |
|---------------|-------------|-------------|
| <i>shuall</i> | <i>prej</i> | <i>gome</i> |
| sole | GEN | rubber |
| ‘rubber sole’ | | |

Faroese *hjá* ‘at’ > marker of attributive possession. Ex.

Faroese (Lockwood 1955: 104–5, quoted from Koptjevskaja-Tamm forthc.)

| | | |
|---------------------|------------|-----------------|
| <i>hestur-in</i> | <i>hjá</i> | <i>Jógvan-i</i> |
| horse- DEF:SG:M:NOM | at | John- SG:DAT |
| ‘John’s horse’ | | |

Scottish Gaelic *aig* ‘at’ > marker of attributive possession. Ex.

Scottish Gaelic (Koptjevskaja-Tamm forthc.)

| | | | |
|------------------------|--------------|------------|--------------|
| <i>an</i> | <i>taigh</i> | <i>aig</i> | <i>a’</i> |
| the:M:SG:NOM | house:NOM:SG | at | the:M:SG:DAT |
| <i>mhinistear</i> | | | |
| minister:M:SG:NOM | | | |
| ‘the minister’s house’ | | | |

Irish *ag* ‘at’ > marker of attributive possession. Ex.

Irish (Koptjevskaja-Tamm forthc.)

| | | | | |
|-----------------------|------------------|------------|-----------|---------------|
| <i>an</i> | <i>chathaoir</i> | <i>seo</i> | <i>ag</i> | <i>Peadar</i> |
| the:M:SG:NOM | chair:NOM:SG | this | at | Peter:NOM:SG |
| ‘this chair of Peter’ | | | | |

This pattern of grammaticalization is described as an instance of the Location Schema in Heine 1997a: 114–15.

³⁹ A-POSSESSIVE refers to markers of attributive possession (cf. English *of*; see Heine 1997a).

LOCATIVE > (9) H-POSSESSIVE

Russian

U menja kniga.
 at me book
 'I have a book.'

So *-o*, *-a*, locative case suffix > marker of predicative possession. Ex.

So (Carlin 1993: 68)

mek Auca eo- a kus- in.
 NEG:be Auca home-LOC skin-PL
 'Auca has no clothes.'

This fairly common case of grammaticalization is described as an instance of the Location Schema in Heine 1997a: 114–15.

LOCATIVE > (10) SUBORDINATOR

Kxoe 'o 'at', locative postposition > subordinator of temporal, causal, and modal clauses. Ex.

Kxoe (cf. Köhler 1981a: 550; Yvonne Treis, personal communication)

tíú pòo yaá xàm ún- á-xu- a- ta
 then jackal come lion hunt-I-TERM-I- PAST
 'ò.
 SUB

'Then the jackal came, when the lion had left for hunting.'

Saramaccan CE *ká* 'where', 'at that place' (< Portuguese *acá* 'here', 'this way') > marker of adverbial locative clauses (Byrne 1988).

Locative markers appear to be one of the most common sources for clause subordinators (cf. Radden 1985). See also **HERE > CAUSE**.

LOCATIVE > (11) TEMPORAL

Tamil *-il* 'on', 'at', locative suffix > 'in', 'at', temporal suffix. Ex.

Tamil (T. Lehmann 1989: 39)

- (a) *kurivi mara-tt- il uṭkaar- kir - atu.*
 bird tree- OBL-LOC sit- PRES- 3:NEUT:SG
 'The bird is sitting on the tree.'
- (b) *kumaar oru vaara-tt- il inta-p pustaka-*
 Kumar one week- OBL-LOC this book-
tt- ai·p paṭi- tt- aan.
 OBL-ACC study- PAST- 3:M:SG
 'Kumar read this book in one week.'

This is perhaps one of the most frequently employed conceptual metaphors; see, for example, Givón 1979a: 217; Lord 1989; Heine et al. 1991; Haspelmath

1997b. It is hard to find languages where some expressions for locative concepts are not extended to also refer to temporal concepts. See also **ABLATIVE**; **ALLATIVE**; **BEHIND**; **FRONT**; **IN**; **INTERIOR**.

LOVE ('to love', 'to like') > (1) AVERTIVE

Cahuilla -ʔáyaw- 'to love', transitive verb > avertive marker, "indicating that the process portrayed by the nucleus was intended, and 'almost', but not wholly, realized" (Seiler 1977: 221). Ex.

Cahuilla (Seiler 1977: 221)

| | | | |
|--------------------------|-----------------|---------------|------------|
| <i>hem-</i> | <i>pícalaw-</i> | <i>ʔáyaw-</i> | <i>ʔi.</i> |
| 3:PL- | get:there- | love- | ABS |
| 'They almost got there.' | | | |

A detailed reconstruction of this process in Tok Pisin PE can be found in Romaine 1999. This instance is probably a special case of the (>) WANT > PROXIMATIVE grammaticalization.

LOVE ('to love', 'to like') > (2) FUTURE

Albanian *do* 'love'; 'need'; 'wish' > auxiliary expressing future tense. Ex.

Albanian (Buchholz et al. 1993: 693)

| | | | | | |
|----------------------------------|-----------|----------------|-----------|--------------|----------------|
| <i>Do</i> | <i>të</i> | <i>çilen</i> | <i>të</i> | <i>tjera</i> | <i>galeri.</i> |
| (FUT | ART | open:3:PL:PRES | PART | other | galleries) |
| 'More galleries will be opened.' | | | | | |

English *like*, verb > Tok Pisin PE *laik*, future marker. Ex.

Tok Pisin PE (Bybee et al. 1994: 255)

mi laik wokabaut.
'I shall walk.'

This is probably a special case of the (>) WANT > FUTURE grammaticalization.

LOVE ('to love', 'to like') > (3) INTENTION

Lingala -*linga* 'love', 'want', verb > auxiliary expressing intentions. Ex.

Lingala (van Everbroeck 1969: 140)

| | | | | |
|-------------------|--------------|--------------------|------------|---------------|
| <i>na-</i> | <i>ling-</i> | <i>í</i> | <i>ko-</i> | <i>kende.</i> |
| (1:SG- | love- | PAST ⁴⁰ | to- | go) |
| 'I intend to go.' | | | | |

As the cross-linguistic analysis by Bybee et al. (1991) suggests, the evolution LOVE/WANT > INTENTION is a common intermediate step in the development leading to new FUTURE markers (see also WANT). The conceptual distinction between LOVE and WANT is fuzzy in many languages. No attempt is made here to make a rigid separation of the two. Accordingly, both share similar patterns of conceptual shift (see WANT).

⁴⁰ Very likely, the PAST marker -*i* has a function other than past tense in this example.

LOVE ('to love', 'to like') > (4) PROXIMATIVE

Lingala *-linga* 'love', 'want', verb > marker of proximative aspect. Ex.

Lingala (van Everbroeck 1969: 140)

o- ling-í oyébi lingála.
 (2:SG-love-PAST know Lingala)
 'You almost know Lingala.'

English *like*, verb > Tok Pisin PE *laik*, proximative marker. Ex.

Tok Pisin PE (Bybee et al. 1994: 255)

em i laik wokabaut.
 'He is about to walk.'

A detailed reconstruction of this process can be found in Romaine 1999. This instance is probably a special case of the (>) WANT > PROXIMATIVE grammaticalization.

M

'Make, to' see DO

MAN ('man', 'male', 'person') > (1) CLASSIFIER

Kilivila *tau* 'man' > *to/te*, classificatory particle for persons of male sex and for human beings (Senft 1996: 20, 22, 353). Ex.

Kilivila (Senft 1996: 22)

| | | | | | | |
|-----------------|---------------|-------------------|--------------------|----------------|------------------|--------------|
| <i>o</i> | <i>da-</i> | <i>valu-</i> | <i>si</i> | <i>e-</i> | <i>sisu-</i> | <i>si</i> |
| in | 1:INCL- | village- | PL | 3- | live- | PL |
| <i>tommota</i> | | <i>to-</i> | | <i>paisewa</i> | <i>vivila</i> | <i>na-</i> |
| people | | human:beings- | | work | woman | female- |
| <i>salau</i> | <i>tauwau</i> | <i>to-</i> | <i>bugubagula</i> | | <i>tommota</i> | <i>gala</i> |
| busy | men | male- | work:in:the:garden | | people | not |
| <i>to-</i> | | <i>dubakasala</i> | | <i>kena</i> | <i>kumwedona</i> | <i>e-</i> |
| human:beings- | | rude | | but | all | 3- |
| <i>nukwali-</i> | | <i>si</i> | <i>bubune-</i> | | <i>si</i> | <i>bwena</i> |
| know- | | PL | manners- | | their | good |

'In our village live people taking pleasure in their work. The women are busy, the men are good gardeners. The people are not rude, but all have good manners.'

Thai *khon* 'man', 'person' > classifier for humans in general (Bisang 1999: 128). Ex.

Thai (Bisang 1999: 168)

(a) *khon-* *khây* *săam* *khon*
 CN:man- sick three CLASS:man
 'three patients'

| | | |
|----------------------------|------------|-------------|
| (b) <i>phûu-khón-khwáa</i> | <i>sii</i> | <i>khon</i> |
| researcher | four | CLASS |
| 'four researchers' | | |

Akatek *winaj* 'man' > *naj*, noun classifier for human beings, saints, and mythological animals (Zavala 2000: 134–5). Ex.

Akatek (Zavala 2000: 136)

| | |
|-------------|------------|
| <i>naj</i> | <i>me'</i> |
| CLASS | sheep |
| 'the sheep' | |

Concerning the rise and development of classifiers in Chinese, see Peyraube 1998. This grammaticalization appears to be part of a more general process whereby certain nouns, on account of some specific semantic characteristic, are recruited as structural templates for a folk taxonomic classification of nominal concepts; see also **BRANCH**; **CHILD**; **PIECE**; **SONG**; **TREE**; **WOMAN**. More research is required on the genetic and areal distribution of this process.

MAN ('man', 'male', 'person') > (2) EXCLAMATION

Moré *dawa* 'man (vir)' > *dawa!* 'Hi, you there!' (exclamation particle; Alexandre 1953b: 79f.). Swahili *bwana* 'man', 'sir' > *bwana!* 'you there!' Ex.

Swahili

| | | | | | |
|---|------------|------------|---------------|-----------|---------------|
| <i>u-</i> | <i>si-</i> | <i>ni-</i> | <i>sumbu-</i> | <i>e,</i> | <i>bwana!</i> |
| 2:SG- | NEG- | 1:SG:OBJ- | disturb- | SUBJUNCT | man |
| 'Don't disturb me!' (can be used in some dialects even if a female person is addressed) | | | | | |

Compare English *man*; for example, in *Man, was I scared!*' (anonymous reader). More research is required on the exact nature and the genetic and areal distribution of this process.

MAN ('man', 'male', 'person') > (3) INDEFINITE PRONOUN

Icelandic *maður* 'man', 'person', noun > 'someone', indefinite pronoun. Ex.

Icelandic (Stolz 1991b: 13)

| | | | | | |
|---|---------------|-----------|------------|-------------|-------------|
| <i>maður</i> | <i>leita-</i> | <i>r</i> | <i>til</i> | <i>hin-</i> | <i>s</i> |
| PRON:NOM | draw- | 3:SG PREP | to | other- | NEUT:SG:GEN |
| <i>kyn-s-</i> | <i>in-</i> | <i>s.</i> | | | |
| SEX- GEN:NEUT:SG-DET-NEUT:SG:GEN | | | | | |
| 'One is inclined toward the other sex.' | | | | | |

Latin *homo* 'man', noun > French *on*, pronoun. German *Mann* 'man', noun > man, indefinite pronoun (subject only). Ex.

German

| | | | |
|------------------------|------------|------------|---------------|
| <i>Man</i> | <i>tut</i> | <i>das</i> | <i>nicht.</i> |
| someone | does | that | not |
| 'One doesn't do that.' | | | |

See also Lehmann (1982: 51–2). This appears to be an instance of a process whereby generic nouns like 'person' and 'thing', either on their own or as part of some noun phrase, are grammaticalized to pronouns; compare PERSON; THING.

MAN ('man', 'male', 'person') > (4) MALE

Nouns for 'man (*vir*)' have been grammaticalized in some languages to closed-class categories denoting male participants, typically as adjectival modifiers or derivative affixes. !Xun, northern dialect //òq, PL *n//ae* 'man', 'male', noun > -//òq, PL *-n//ae* 'male', derivative suffix mostly on animal names. Ex.

!Xun, northern dialect (Bernd Heine, field notes)

| | |
|---------------------------------------|---------------------------------------|
| <i>!xó-//òq</i> ; PL <i>!xó-n//ae</i> | <i>!hm-//òq</i> ; PL <i>!hm-n//ae</i> |
| 'male elephant(s)' | 'male leopard(s)' |

Ewe *ɲútsu* 'man', noun > -*ɲútsu* 'male', derivative suffix of limited productivity. Ex.

Ewe (cf. Westermann 1907: 48–9)

| | | | |
|--------------|--------------|--------------|--------------|
| <i>nɔví-</i> | <i>ɲútsu</i> | <i>srɔ̃-</i> | <i>ɲútsu</i> |
| sibling- | man | spouse- | man |
| 'brother' | | 'husband' | |

Ewe *atsú* 'husband', noun > -*tsú* 'male', derivative suffix mostly on animal and plant names. Ex.

Ewe (cf. Westermann 1907: 48)

| | |
|------------|----------------|
| <i>nyi</i> | <i>nyi-tsú</i> |
| 'cattle' | 'bull' |

This is an instance of a process whereby human nouns, on account of some salient semantic characteristic, give rise to grammatical markers highlighting that characteristic; see also CHILD; FATHER; MOTHER; WOMAN.

MAN ('man', 'male', 'person') > (5) THIRD PERS-PRON

||Ani *khó(e)-mà* 'male person', 'man', noun > *khó(e)-mà*, *khó-m* 'he', third person masculine singular pronoun. Ex.

||Ani (Heine 1999a: 28)

| | | | | | | |
|-------|-------------|-------------|-----------|-----------------|---------------|------------|
| [...] | <i>kánà</i> | <i>khó-</i> | <i>m̄</i> | <i>hin-//òè</i> | <i>kx'éi-</i> | <i>hè.</i> |
| | because | person-M:SG | | do- HAB | manner-F:SG | |

'[The crocodile catches her] because this is the way he (= the crocodile) does it.'

Lendu *ke* 'man', *ndrú* or *kpà* 'people' > *ke*, third person singular pronoun, *ndru* or *kpa*, third person plural pronoun. Ex.

Lendu (Tucker 1940: 392)

| | | | | |
|----------------|--------------|------------------|------------|-------------|
| <i>ma- zhi</i> | <i>ndru.</i> | <i>ke</i> | <i>zhi</i> | <i>kpa.</i> |
| 1:SG-love | 3:PL | 3:SG | love | 3:PL |
| 'I love them.' | | 'He loves them.' | | |

Zande **ko* 'man', 'male' > *kó*, masculine gender pronoun (Heine and Reh 1984: 223; Claudi 1985).

While there are examples of this grammaticalization from three different language phyla, all are confined to Africa; conceivably, we are dealing with an areal phenomenon. See also Heine and Reh 1984: 223–4, 272. This appears to be another instance of a process whereby generic nouns like 'person' and 'thing' are grammaticalized to pronouns; compare PERSON; THING.

MANNER > SIMILE

Thai *yàaŋ* 'way', 'manner' > *yàaŋ-kàb* (lit.: 'way/manner-with'), comparison marker 'as if' (Bisang 1998b: 777). Kenya Pidgin Swahili (PS) *namna* (*ile*) 'manner (which)' > 'like', 'as'. Ex.

Kenya PS

| | | | | | |
|----------------------|--------------|----------------|-------------|------------|--------------|
| <i>fanya</i> | <i>namna</i> | (<i>ile</i>) | <i>wewe</i> | <i>na-</i> | <i>taka.</i> |
| do | manner | (DEM) | you | PRES- | want |
| 'Do it as you like.' | | | | | |

More cross-linguistic data is required to substantiate this process, including its directionality.

MATTER > (1) CAUSE

||Ani *mùqóá-sì* 'matter' (matter-F:SG) > 'because of', postposition. Ex.

||Ani

| | | | | | | |
|--------------------------|---------------|-----------|------------|-----------|-----------------|------------|
| <i>tí</i> | <i>fí àà-</i> | <i>tè</i> | <i>tsá</i> | <i>dì</i> | <i>mùqóá-sì</i> | <i>kà.</i> |
| 1:SG | COME-PRES | | 2:M:SG | POSS | reason-F:SG | LOC |
| 'I came because of you.' | | | | | | |

Baka *ʔèè ná kè* . . . *nè* ('matter'-ART DEM . . . REL) 'therefore' (conjunction of reason). Ex.

Baka (Christa Kilian-Hatz, *personal communication*)

| | | | | |
|--|------------|--------------|--------------|---------------|
| <i>ʔá</i> | <i>jàè</i> | <i>peè</i> | <i>m̀̀ni</i> | <i>k̀̀pè.</i> |
| 3:SG | take:PAST | BEN:1:SG | money | all |
| <i>ʔèè ná kè</i> | <i>ma</i> | <i>gb̀̀è</i> | <i>lé</i> | <i>nè.</i> |
| therefore | 1:SG | beat:PAST | him | REL |
| 'He has stolen all my money; therefore I have beaten him.' | | | | |

Vai *kò* 'matter', 'affair', 'news', 'thing', 'case', noun > *-kòà* (< *-ko + a*) 'to', 'in order to', 'on account of', subordinator of purpose or reason clauses. Ex.

Ik *mɛn^a* ‘matter, problem’, noun > *mɛn^a* (*ni*) (‘matter (which)’, ‘that’⁴¹), complementizer. Ex.

Ik (König 1999)

- (a) *tírr-* *a* *mɛná-* *k^a*.
 have- *a* problem- ACC
 ‘He has a problem.’
- (b) *ńtá* *iye-* *í* *mɛná* *tód-at^a*.
 NEG know-NEG what:ACC say-3:PL
 ‘He does not know what they say.’

This grammaticalization appears to be an instance of a more general process whereby certain generic nouns serving as nominal complements are pressed into service as markers of clause subordination. In many languages, this process has not proceeded beyond an incipient stage where it remains controversial whether, or to what extent, the relevant noun constitutes a noun or a clause subordinator; see König 1999 for a discussion. See also PLACE; THING.

MATTER > (3) PURPOSE

Thai *kaan* ‘fact’, ‘matter’ > *kaan-thíi-cà?* (lit.: ‘fact/matter-COMP-FUT’) ‘in order to’ (Bisang 1998b: 777). Nama *!kèii/!kèië/!kèisa* [*!xáís*] ‘matter’, ‘story’, noun > purpose clause marker. Ex.

Nama (Krönlein 1889: 206)

| | | | | |
|---------------|-----------|----------------|-------------|------------|
| <i>Nesa</i> | <i>ta</i> | <i>ra</i> | <i>m̄ba</i> | <i>tsi</i> |
| this:F | 1:SG | PROG | say:APPL | 2:SG |
| <i>!gũnts</i> | <i>nĩ</i> | <i>!kèië</i> . | | |
| go:2:M:SG | FUT | COMP | | |

‘I tell you this so that you go.’

Susu *fe* ‘matter’, ‘affair’, noun > *-fe*, *-fera* (*-ra* = multipurpose particle), purpose marker (de-verbal nominalizer). Ex.

Susu (Friedländer 1974: 50)

| | | | | | |
|----------|--------------|-----------|--------------|----------|---------------------|
| <i>a</i> | <i>nakha</i> | <i>si</i> | <i>sukhu</i> | <i>a</i> | <i>fakha-fera</i> . |
| (3:SG | TAM | goat | catch | 3:SG | kill- PURP |

‘She seized the goat in order to kill it.’

This grammaticalization appears to be another instance of a process whereby certain generic nouns are pressed into service as markers of nominal or clausal participants; compare MATTER > CAUSE.

‘Middle’ see CENTER

⁴¹ Since Ik nouns retain their case inflections even when grammaticalized to complementizers, the result is that this language has several case-inflected clause subordinators (see König 1999).

MIRATIVE > EVIDENTIAL, INFERENTIAL

Korean *-kun*, mirative suffix > inferential evidential (DeLancey 1997: 45).
 Sunwar /'baak-/, mirative existential copula > inferential/hearsay perfect. Ex.

Sunwar

- (a) *Tangka Kathmandu- m 'baâ- tə*
 Tangka Kathmandu- LOC exist- 3:SG:PAST
 'Tangka is in Kathmandu.' (said by someone who had seen Tangka in Kathmandu, not having known previously that he was there)
- (b) *kyarša 'sad- a 'baâ- tə.*
 goat kill- 3:SG exist- 3:SG:PAST
 'He killed a goat (I hear or infer).'

In some languages the mirative is encoded as a distinction in the copular system and enters the verbal system through finite constructions built on copulas; other languages, however, manifest this distinction in marking it in verb inflection but not in the copula (for details, see DeLancey 1997: 46). It seems that the grammaticalization development MIRATIVE > INFERENTIAL EVIDENTIAL has also taken place in Khowar, Kalasha, Washo, Akha, Chinese Pidgin Russian, and other languages (DeLancey 1997: 47).

MOTHER > FEMALE

Nouns for 'mother' have been grammaticalized in some languages to closed-class markers denoting female participants, typically as adjectival modifiers or derivative affixes. !Xoõ *qáe* 'mother', noun > 'female', modifier. Ex.

!Xoõ (Traill 1994: 154, 174; Güldemann 1999b: 69)

| | | | |
|------------|------------|-------------|------------|
| <i>tâa</i> | <i>qáe</i> | <i>gúmi</i> | <i>qáe</i> |
| person | mother | cattle | mother |
| 'woman' | | 'cow' | |

!Xun, northern dialect *dé* 'mother', noun > *-dé* 'female', derivative suffix. Ex.

!Xun, northern dialect (Bernd Heine, field notes)

| | |
|-------------------|------------------|
| <i>!xó-dé</i> | <i>!hm-dé</i> |
| 'female elephant' | 'female leopard' |

Ewe *nɔ* 'mother', noun > *-nɔ* 'female', derivative suffix used especially with nouns for animals and some plants. Ex.

Ewe (cf. Westermann 1907: 48)

| | |
|------------|---------------|
| <i>nyi</i> | <i>nyi-nɔ</i> |
| 'cattle' | 'cow' |

This is an instance of a process whereby human nouns, on account of some salient semantic characteristic, give rise to grammatical markers highlighting that characteristic; see also CHILD; FATHER; MAN; WOMAN.

MOUTH (body part) > FRONT

!Xun *ts'i* 'mouth', noun > 'in front of' (Svorou 1994: 71). Susu *dè* 'mouth', 'opening' + *-ra*, multipurpose particle > *dèra* 'in front of', 'at', locative postposition. Ex.

Susu (Friedländer 1974: 40)

| | | | | | |
|-----------------------------------|-----------|---------------|-----------|------------|--------------|
| <i>M</i> | <i>ma</i> | <i>bankhi</i> | <i>na</i> | <i>baa</i> | <i>dèra.</i> |
| (1:SG | GEN | house | be | sea | in:front:of) |
| 'My house is located at the sea.' | | | | | |

Zande (*bara* 'place' +) *ngba* 'mouth' > *bara-ngba* 'in front of', 'before', preposition (Canon and Gore [1931] 1952: 13, 101). Mursi *-tutuo* 'mouth of' > 'in front'. Ex.

Mursi (Turton and Bender 1976: 543)

| | |
|-------------------------|--------------|
| <i>dori-</i> | <i>tutuo</i> |
| house- | mouth:of |
| 'in front of the house' | |

This grammaticalization appears to be an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; see also **BACK**; **BELLY**; **BUTTOCKS**; **EYE**; **FACE**; **FLANK**; **HEAD**; **NECK**.

N**NEAR ('near', 'close to') > (1) AFTER**

German *nahe* 'close', *nächster* 'closest', 'next' > *nach* 'after' (Haspelmath 1997b: 64). Latin *ad pressum* 'at close' > French *après* 'after'. Basque *ondo* 'ground'; 'vicinity'; consequence' > *ondoan* 'after' (Haspelmath 1997b: 64).⁴²

This grammaticalization appears to be an instance of a more general process whereby spatial concepts are used to also express temporal concepts. More data, especially data from non-European languages, are required to determine the exact nature of this process.

NEAR ('near', 'close to') > (2) AVERTIVE, PROXIMATIVE

Swahili *karibu* + subjunctive main verb > avertive marker. Ex.

⁴² Basque *ondo* has been borrowed from Romance; its original and still-current meaning is 'bottom'. From this there are two formations for 'after': *ondoan* (*ondo-an*, bottom-LOC) and *ondoren* (*ondo-(r)en*; bottom-GEN). Ex. Basque (anonymous reader)

| | | | | | |
|----------------|--------------|-----------|----|----------------|-------------------|
| <i>jan</i> | <i>ondo-</i> | <i>an</i> | OR | <i>jan-</i> | <i>ondo-(r)en</i> |
| eat[PFV] | side- | LOC | | eat[PFV] | side- GEN |
| 'after eating' | | | | 'after eating' | |

Swahili (Heine 1997d: 11)

- (a) A- li- kuwa karibu.
 3:SG- PAST- be near
 ‘He was nearby.’
- (b) *Karibu* ni- f- e maji
 near 1:SG- die- SUBJUNCT water
 ‘I nearly drowned.’

Tsonga *kusuhi na ku* ‘near to’ > averitive marker (Heine 1997d: 11). English *nearly* > *nearly*, averitive adverb. Seychelles CF *pros* ‘near’ > ‘be on the point of’, proximative marker. Ex.

Seychelles CF (Corne 1977: 149)

zot *pros* *pur* (*zot*) *ale*
 (they near for they go)
 ‘They are on the point of leaving.’

For more details, see Heine 1997d: 11–2 and Kuteva 1998, forthc.a, forthc.b. A detailed reconstruction of this process can be found in Romaine 1999. This grammaticalization appears to be an instance of a more general process whereby grammatical aspect functions are conceptualized and expressed in terms of locative concepts; compare **LOCATIVE > CONTINUOUS**.

NECK (body part) > LOCATIVE

Vai *kañ* ‘neck’, noun > *kando* (= *kañ* + *ro*, ‘neck’ + ‘in’) ‘above’, locative post-position. Ex.

Vai (Koelle [1854] 1968: 39)

Súbahánalai *ábe* *tére-* *kando*.
 (Subahanalai 3:SG:COP sun- above)
 ‘Subahanalai was above the sun.’

Susu *könyi* ‘neck’ + *-ra*, multipurpose particle, *-na* after dental nasals > *könna* ‘along’, ‘in’, ‘at a prolonged object’; *wuri könna* ‘along the tree’ (Friedländer 1974: 40).

So far, only examples from the Mande branch of Niger-Congo family have been found, and it might, therefore, be a case of areal or genetically defined grammaticalization. Nevertheless, this case appears to be an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; compare, for example, **BACK; EYE; FACE; FOOT; HEAD; HEART; NECK**.

NEED > OBLIGATION

English *need (to)* + infinitive > marker of medium obligation (Denning 1987: 46). Basque *behar* is the ordinary noun for ‘need’, ‘necessity’. Combined with a transitive auxiliary, its meanings include that of marking deontic modality (‘have to’, ‘must’). Ex.

Basque (anonymous reader)

- (a) *Diru- a behar d- u- t.*
 money- DET need PRES-AUX-1:SG:ERG
 'I need money.'
- (b) *Etxe- ra joan behar d- u- t.*
 house- ALL go[PFV] need PRES-AUX-1:SG:ERG
 'I have to go home.'

Hausa *kàmātà* 'need', 'ought to', verb > deontic marker of obligation. Ex.

Hausa (Herms 1987: 87; Ma Newman 1990: 178)

- ya kāmātā mu tafi.*
 (3:M:SG need 1:PL go)
 'We must go.'

Acholi *myero* 'need', 'be suitable', 'fit', 'becoming' > *o-myero* (third person singular past form), deontic marker of necessity and obligation, epistemic marker. Ex.

Acholi (Bavin 1995: 121–2)

- (a) *Ci omyero en o- cwal jami- ni weng*
 and must he 3:SG-take thing-DEM all
loca kulu.
 across river
 'And he needed to take all these things across the river.'
- (b) *In omyero i- cam mot.*
 you must 2:SG-eat slowly
 'You should eat slowly.'

See Denning 1987: 46ff. and also OWE. For a treatment of modality as a semantic map, see van der Auwera and Plungian 1998. This is an instance of a process whereby a verb, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; see, for example, DESCEND; FOLLOW; GET; GO.

NEGATION > S-QUESTION

Harris and Campbell (1995: 294–5) describe the structure illustrated below as the "A-not-A structure" which may be a source for S-QUESTION markers. In many Tibeto-Burman languages the negative marker **ma* was grammaticalized to a marker of yes-no questions.

Cantonese (Harris and Campbell 1995: 79)⁴³

- nee zek- mu- zek in ah?*
 you smoke- not- smoke in ah
 'Do you smoke?'

⁴³ Alain Peyraube (personal communication) doubts whether this is a suitable example to substantiate the present process.

Mandarin Chinese *bu*, negation maker (see also Peyraube 1996: 197). Ex.

Mandarin Chinese (Li and Thompson 1984: 52ff.; Harris and Campbell 1995: 295)

- (a) *tā* *bu* *zài* *jiā*.
 3:SG NEG at home
 'S/He is not at home.'
- (b) *tā* *zài* *jiā* *bu* *zài* *jiā*?
 3:SG at home NEG at home
 'Is s/he at home?'

Turkish (Harris and Campbell 1995: 295; the A-not-A structure with a question particle)

kadın *tarla-ya* *git-ti- mi* *git-me- di- mi*?
 woman field-DAT go-PAST-Q go-NEG-PAST-Q
 'Did the woman go to the field (or didn't she go)?'

Conceivably, tag questions (e.g., English *He has left, hasn't he?*) may also be linked to the present grammaticalization process. Harris and Campbell (1995: 295) observe: "The expression *or not* functions in a way similar to tags in many languages, though its structure suggests that it may be derived from an A-not-A structure." However, more research is required on the exact nature and the genetic and areal distribution of this process. See also OR > S-QUESTION.

NEGATION, EXIST ('there is not') > NO, NEGATION

Wari' 'om 'not exist' > 'om, negation marker. Ex.

Wari' (Everett and Kern 1997: 82)

| | | | |
|-----------|--------------------------------|--|-------------------------|
| 'Om | <i>ca</i> | | <i>camain'</i> |
| not:exist | INFLECTION:NEUT:REAL:PRES/PAST | | bitter |
| <i>ne</i> | <i>ca</i> | | <i>tomi'</i> <i>wa.</i> |
| 3:NEUT | INFLECTION:NEUT:REAL:PRES/PAST | | speak INF |

'Speaking is not bitter.'

Turkish *yok* 'there is not', negative existence marker > 'no!', interjection for negation. Ex.

Turkish (Lewis [1967] 1985: 142; Ergun Cehreli, personal communication)

- (a) *köşede bir kahve yok.*
 'There is no cafe on the corner.'
- (b) *onu seviyormusun? yok!*
 'Do you love him? No!'

Swahili *ha-pa-na* 'there is none' > *hapana* 'no'. Ex.

Swahili

- (a) *Ha- pa- na sukari.*
 NEG-C16-have sugar
 'There is no sugar.'
- (b) *U- na sukari? Hapana.*
 2:SG- have sugar no
 'Do you have sugar? No.'

Turku PA *mafi* (*ma* NEG + *fi* 'exist') > *mafi*, sentence-final negation marker (Tosco and Owens 1993: 198, 202). This appears to be another classical instance of desemanticization ("semantic bleaching"), whereby a more complex meaning is reduced to its nucleus, viz. negation; see, for example, COPULA, LOCATIVE > LOCATIVE.

NOW (TEMPORAL) > STILL

Hausa *har yànzù* 'until now', 'still' (van Baar 1997: 93). Basque *oraindik* 'from now', 'still' (van Baar 1997: 94). Lithuanian *dabar* 'now' > *dar* 'still' (van Baar 1997: 94). Note also that in Cakchiquel, the adverbial particle *tan* 'now' in combination with the aspect markers has given rise to a tense marker (Harris and Campbell 1995: 75–6). More research is required on the exact nature and the genetic and areal distribution of this process.

'Numeral' see ONE; THREE; TWO.

O**OBLIGATION > (1) FUTURE**

This process appears to be well documented across languages; see Bybee et al. 1991 and Bybee et al. 1994 for details. Not uncommonly, the process is triggered by specific contexts relating to personal deixis: while the OBLIGATION meaning may be retained in contexts where second person subject referents are involved, the FUTURE meaning tends to arise in contexts where third person subjects are involved. (See Schäfer-Prieß 1999: 102–4 for observations on Romance languages.)

OBLIGATION > (2) PROBABILITY

English *must*, obligation auxiliary > marker of the epistemic modality of probability. Ex.

English (anonymous reader)

- (a) *I must go home.*
 (b) *That must be the postman.* (on hearing the doorbell)

German *müssen* 'must', auxiliary expressing strong obligation > strong probability, inferred certainty. Ex.

German

- (a) *Er muss sofort kommen.*
 he must instantly come
 'He has to come immediately.'
- (b) *Er muss gestern gekommen sein.*
 he must yesterday come be
 'He must have come yesterday.'

Seychelles CF *bezuê* 'have to', marker of obligation > marker of probability. Ex.

Seychelles CF (Corne 1977: 136)

- (a) *nu it bezuê desan à-vil.*
 (1:PL PAST have:to go to:town)
 'We had to go to town.'
- (b) *i bezuê pe ale.*
 (3:SG have:to PROG leave)
 'He is probably leaving.'

This grammaticalization has been well described by Bybee et al. (1994: 224ff.); it is an instance of a more general process whereby markers for deontic modality develop into markers of epistemic modality. There are various hypotheses on how this process is to be explained. According to the one perhaps most frequently voiced, the development from deontic to epistemic meanings is suggestive of metaphorical transfer (see, e.g., Sweetser 1982; Bybee and Pagliuca 1985: 73; Heine 1991: 175–8). Sweetser (1990: 52) argues that this development can be accounted for in terms of "sociophysical concepts of forces and barriers," and Traugott (1989) suggests that we are dealing with an instance of subjectification in semantic change (see also Hopper and Traugott 1993: 86). Compare **ABILITY > POSSIBILITY; DEONTIC MODALITY > EPISTEMIC MODALITY**.

'On' see UP

ONE (NUMERAL) > (1) ALONE

Ewe *ɖeká* 'one', cardinal numeral > 'alone' in certain contexts. Ex.

Ewe

| | |
|------------|-------------|
| <i>éyá</i> | <i>ɖeká</i> |
| 3:SG | one |
| 'he alone' | |

German **alle* 'all' + *ein* 'one' > *allein* 'alone'. Tondano *əsa* 'one', numeral > 'alone'. Ex.

Tondano (Sneddon 1975: 131)

| | | | |
|-------------------------------------|---------------|-----------|------------|
| <i>si</i> | <i>piŋkan</i> | <i>nu</i> | <i>əsa</i> |
| CM:SG | Pingkan | PM | one |
| 'Pingkan herself' / 'Pingkan alone' | | | |

More research is required on this process. Not uncommonly, it is not the cardinal numeral 'one' on its own that assumes the ALONE-function; rather, it tends to be modified by some other marker. Compare ALONE > ONLY; ONE > ONLY.

ONE (NUMERAL) > (2) INDEFINITE

English *one* > *a(n)* (indefinite article). Albanian *një* 'one', numeral > 'a(n)', indefinite article. Ex.

Albanian (Buchholz et al. 1993: 367)

(a) *një e një bëjnë dy.*
 (one and one 3:PL:PRES:make two)
 'One plus one is two.'

(b) *një djalë një grua*
 'a boy' 'a woman'

Basque *bat* 'one' > indefinite article; for example, *etxe bat* 'one house' or 'a house' (anonymous reader). Turkish *bir* 'one', numeral > indefinite article. Ex.

Turkish (anonymous reader; Lewis [1967] 1985: 54)

(a) *bir büyük tarla*
 (one big field)
 'one large field'

(b) *büyük bir tarla*
 (big one field)
 'a large field'

German *ein* 'one' > indefinite article. French *un* 'one' (M) > indefinite article. Ewe *déká* 'one' > *dé*, indefinite article. Moré *a yémré* 'one' (numeral) > 'some', 'a' (indefinite article); for example, *dār a yémré* 'a/some day' (Alexandre 1953b: 469). Hungarian *egy* 'one' (numeral) > 'a(n)', indefinite article. Ex.

Hungarian (Szent-Iványi 1964: 73)

Keres- *ek egy tanítót.*
 search-1:SG:PRES one teacher
 'I am looking for a teacher.'

Lezgian *sa* numeral 'one' > indefinite article. Ex.

Lezgian (Haspelmath 1993: 230)

(a) *sa tar*
 one tree
 'one tree'

(b) *Žiraf- di qib sa q'aq'an tarci- n*
 giraffe- ERG frog one high tree- GEN
xile- l ecig- na.
 twig- SRESS put- AOR
 'The giraffe put the frog on a twig of a tall tree.'

Easter Island *etahi* 'one' > indefinite article. Ex.

Easter Island (Chapin 1978: 148, 158)

| | | | | | | | |
|-----|--------------|------------|--------------|----------------|-------------|-------------|-----------|
| (a) | <i>Etahi</i> | <i>o</i> | <i>matou</i> | <i>i</i> | <i>ta'e</i> | <i>haga</i> | <i>mo</i> |
| | one | GEN | we | PERF | NEG | want | INF |
| | <i>hoki</i> | <i>mai</i> | <i>mai</i> | <i>Tahiti.</i> | | | |
| | return | here | from | Tahiti | | | |

'One of us didn't want to come back from Tahiti.'

| | | | | | | | |
|-----|-----------|---------------|------------|----------------|--------------|-------------|----------|
| (b) | <i>i</i> | <i>tu'u</i> | <i>mai</i> | <i>ai</i> | <i>etahi</i> | <i>miro</i> | <i>o</i> |
| | PERF | arrive | here | PART | one | boat | GEN |
| | <i>te</i> | <i>harani</i> | <i>mai</i> | <i>Tahiti.</i> | | | |
| | the | France | from | Tahiti | | | |

'A French boat arrives here from Tahiti.'

Tamil *oru* 'one', numeral > indefinite article. Ex.

Tamil (T. Lehmann 1989: 112)

| | | |
|--------------------|--------------|--------------|
| <i>oru</i> | <i>nalla</i> | <i>paṭam</i> |
| one/a | good | movie |
| 'one/a good movie' | | |

See Givón 1981, 1984: 432–5; Hopper and Martin 1987; Heine 1997b: 66–82 for further information on this grammaticalization. The present grammaticalization is confined to the numeral 'one' used as a nominal determiner rather than as a pronoun; for details on the development of 'one' into an indefinite pronoun, see ONE > INDEFINITE PRONOUN.

ONE (NUMERAL) > (3) INDEFINITE PRONOUN

This process involves the use of the numeral 'one' as a pronoun rather than as a nominal attribute (cf. ONE > INDEFINITE). Lehmann (1982: 51–2) cites German *einer* 'one' (M:SG), Italian and Spanish *uno* 'one' (M:SG), and Abkhaz *a-k'(ə)* as examples. Ex.

German

| | | | | | | | |
|-----|--|--------------|------------|------------------|-----------|-------------|------------------|
| (a) | <i>Nur</i> | <i>einer</i> | <i>ist</i> | <i>gekommen.</i> | | | |
| | only | one | is | come | | | |
| | 'Only one has come.' | | | | | | |
| (b) | <i>Kann</i> | <i>einer</i> | <i>mir</i> | <i>sagen,</i> | <i>wo</i> | <i>mein</i> | <i>Glas ist?</i> |
| | can | one | to:me | tell | where | my | glass is |
| | 'Can someone tell me where my glass is?' | | | | | | |

In many cases, it is not the numeral on its own that undergoes this process; rather the numeral tends to be accompanied by some modifying or specifying element; compare English *someone*, *anyone*. Vulgar Latin **aliqui-unu* 'any-one' > Italian *alcuno* 'someone'. French *quelque* 'some' + *un* 'one' > *quelqu'un* 'someone' (cf. Lehmann 1982: 52). For a discussion of this grammaticalization, see Haspelmath 1997a: 183–4; see also Lehmann 1982: 51–2.

ONE (NUMERAL) > (4) ONLY

English *only* derives historically from ‘one’, similarly, German *einzig* ‘only’. Nama /*gui* ‘one’, numeral > ‘only’. Ex.

Nama (Dempwolff 1934–5: 114f.)

| | | | |
|------|------------|------------|--------|
| /gui | Elo- b | /gui-b | hā. |
| (one | God-3:M:SG | one-3:M:SG | exist) |

‘There is one God only.’

Ewe *ɖeká* ‘one’, numeral > ‘only’, adverb. Ex. Ewe *nye ɖeká* (lit.: ‘I one’) ‘me only’. Baka *kpóde* ‘one’, numeral > ‘alone’. Ex.

Baka (Christa Kilian-Hatz, personal communication)

| | | | | | | | |
|------------|-------|-----------|-------|-------------|-------|-----------|-------|
| kò | kò- | lè | kpóde | kò | kò- | mò | kpóde |
| only | body- | 1:SG:POSS | one | only | body- | 2:SG:POSS | one |
| ‘me alone’ | | | | ‘you alone’ | | | |

Lezgian *sa* ‘one’, numeral > ‘only’, restrictive marker. Ex.

Lezgian (Haspelmath 1993: 230, 238)

- (a) *sa tar*
one tree
‘one tree’
- (b) *Sa za-z waʔ či wiri xürü-*
only I- DAT not we:GEN all village-
n- buru- z či- da.
GEN- SBST:PL- DAT know- FUT
‘Not only I, everyone in our village knows (it).’

Bulgarian *edin* ‘one’, numeral > *edinstveno* (*edin* + adjectival suffix) ‘only’, restrictive marker. Ex.

Bulgarian

| | | | | | |
|------------|------------------|-------------------|-----------|-----------|------------------|
| <i>Tja</i> | <i>iskaše</i> | <i>edinstveno</i> | <i>da</i> | <i>go</i> | <i>vpečatli.</i> |
| she | want:3:SG:IMPERF | only | to | him | impress |

‘She only wanted to impress him.’

Krio CE *wan* ‘one’, numeral > ‘only’. Ex.

Krio CE (Boretzky 1983: 221)

| | | | | | |
|--------------|------------|----------------|-----------|-----------------|-----------|
| <i>na</i> | <i>Gɔd</i> | <i>wan</i> | <i>no</i> | <i>wetinmek</i> | <i>wi</i> |
| (it:is | God | one | know | why | our |
| <i>fɪŋga</i> | <i>dɛn</i> | <i>difɾɛn.</i> | | | |
| finger | are | different) | | | |

‘It is God only who knows why our fingers are different.’

While this appears to be a fairly widespread process, more research is required on the exact contextual frame leading to this grammaticalization. See also

ALONE.

ONE (NUMERAL) > (5) OTHER

Bulu *fok* 'one', numeral, when counting > *-vok* 'another', 'other', indefinite modifier. Ex.

Bulu (Hagen 1914: 50, 243)

kelek! miŋga mbok a za'ak!
 (go woman C1:other TAM come)
 'Go! The other woman should come!'

Yagaria *bogo* 'one', numeral > 'another', modifier. Ex.

Yagaria (Renck 1975: 73)

yo' bogo-vi' bei- d- i- e.
 house one- INE live-PAST-3:SG-IND
 'He lives in another house.'

More research is required on the contextual conditions leading to this grammaticalization.

ONE (NUMERAL) > (6) SAME⁴⁴

Albanian *një* 'one', numeral > '(the) same', adverb. Ex.

Albanian (Buchholz et al. 1993: 367)

- (a) *një e një bëjnë dy.*
 (one and one 3:PL:PRES:make two)
 'One plus one is two.'
- (b) *për mua është një.*
 (for 1:SG:ACC 3:SG:PRES:be one)
 'For me it is the same.'

Swahili *-moja* 'one', numeral > 'the same'. Ex.

Swahili

- (a) *m- lango m- moja*
 c3- door c3-one
 'one door'
- (b) *Yote ni moja tu.*
 all COP one only
 'It is all the same.'

ONE (NUMERAL) > (7) SINGULATIVE

East Cushitic **tokko* 'one', numeral > Saho *-to*, singulative marker (Heine and Reh 1984: 273; Marcello Lamberti, personal communication). In Akatek, the numeral *jun* functions as a singulative, that is, a marker that restricts the reference to a single entity. Ex.

⁴⁴ An anonymous reader of an earlier version of this work suggested that there may be an alternative directionality involved since Russian *odin* 'one' yields the derived form *odinakov-* 'same'.

Akatek (Zavala 2000: 118–19)

- (a) *tol chinchi jun a- wakax ti' an.*
 that I:bite one A COW PROXIM I:SG
 'I am going to eat your bull.'
- (b) *jaton b'ey jun yaax k'ultaj tu' xin.*
 there at one green forest DISTAL then
 '[So the boy went] through the mountain.' (lit.: 'green forest')

More research on the areal and genetic distribution of this process is required. This is an instance of a more general process whereby lower numerals are pressed into service as number markers, typically on nouns; compare **THREE**; **TWO**.

ONE (NUMERAL) > (8) SOME⁴⁵

Basque *bat* 'one' means 'about' when attached to another number. Ex.

Basque (anonymous reader)

hogei- (r)en bat or hogei bat
 twenty- GEN one twenty one
 'about twenty'

Lezgian *sa* 'one', numeral > 'about', marker of approximate small numbers. Ex.

Lezgian (Haspelmath 1993: 236)

sa wad deq'iq'adi- laj
 one five minute- SREL
 'about five minutes later'

Compare also Lezgian *sa* 'one', numeral > *sa šumud* ('one' + interrogative pronoun 'how many') 'some', 'several', scalar quantifier. Ex.

Lezgian (Haspelmath 1993: 254)

sa šumud ktab
 one how:many book
 'some books'

Ada sa šumud seferd- a Nurbaladi-q^h
 she(:ERG) one how:many time- ? Nurbala- POESS

galaz q'üler- na.
 with dance- AOR
 'She danced with Nurbala several times.'

Tamil *oru* 'one', numeral > 'some', modifying adjective. Ex.

⁴⁵ An anonymous reader of an earlier version of this work suggested that in Hua there is an alternative directionality: the numeral 'one' is analyzable as consisting of a root meaning 'some', 'some more' plus a suffix meaning 'plain, unmarked'.

Tamil (T. Lehmann 1989: 113)

oru *ampatu* *peer*
 some fifty people
 'some fifty people'

Yagaria *bogo* numeral 'one' > indefinite pronoun 'some'. Ex.

Yagaria (Renck 1975: 73)

(a) *yo'* *bogo-ko'* *hano-d-* *i-* *e.*
 house one- RES exist- PAST-1:SG-IND
 'There is only one house.'

(b) *yale* *bogo*
 people one
 'some people'

||Ani /úú 'one', numeral > /ú 'some', 'other', quantifier. Ex.

||Ani (Heine 1999a)

(a) ≠'úú-è *xórò* *tí* *à'à* /úú
 dove-IMP give 1:SG OBJ one
 ≠'uru /oan- ò kà!
 dove child- M:SG LOC
 'Dove, give me one of your eggs!'

(b) /ú /'è
 some day
 'some days' / 'another day'

Seychelles CF (Seselwa) ê 'one', 'a', numeral, indefinite article > indicator of approximate quantities (when used before cardinal numerals). Ex.

Seychelles CF (Corne 1977: 12-13)

(a) ê *pom-d-amur*
 (a tomato)
 'a tomato'

(b) ê *sâ* *rupi*
 (a hundred rupee)
 'about a hundred rupees'
 Cf. *sâ rupi* '100 rupees'.

This grammaticalization appears to arise when the numeral 'one' can be used as a modifier on noun phrases denoting quantities.

ONE (NUMERAL) > (9) TOGETHER

Swahili *pa-moja* (locative noun class 16 + 'one') > 'together'. Ex.

Swahili

(a) *Wa-* *li-* *kaa* *mahali* *pa-* *moja.*
 3:PL- PAST- stay place C16- one
 'They stayed at one and the same place.'

- (b) *Wa- li- kaa pamoja.*
 3:PL-PAST- stay together
 ‘They stayed together.’

Ewe *ɖeká* ‘one’, number > ‘together’; for example, *bla* ‘tie’, ‘fasten’; *bla ɖeká* ‘tie together’. Bulgarian *edno* ‘one’, numeral > *záedno* (*za* ‘for’, ‘to’, preposition + *edno* ‘one’) ‘together’. Ex.

Bulgarian

- (a) *V тази стая има само едно огledalo.*
 in this room there:is only one mirror
 ‘There is only one mirror in this room.’
- (b) *Xajde да отидем заедно в Кьолн!*
 lets to go together in Cologne
 ‘Let’s go to Cologne together!’

More research on the areal and genetic distribution of this process is required.

OR > S-QUESTION

Moré *bi* ‘or’, listing connective > question particle. Ex.

Moré (Alexandre 1953b: 39)

- (a) *ya fkyēma bi f yao:*
 ‘Is this your big brother or your little brother?’
- (b) *a wā mé bi?*
 ‘Did he come?’

Hausa *kō* ‘or’, ‘either (. . . or)’ > question particle. Ex.

Hausa (Cowan and Schuh 1976: 216)

- (a) *kō nī kī kai*
 (either 2:SG or I)
 ‘either you or I’
- (b) *kō kā sāmī gyàɗā mài yawà?*
 (Q you get peanuts many)
 ‘Did you get a lot of peanuts?’

Kxoe *re* ‘or’, alternative conjunction between noun phrases and verb phrases > marker of polar questions (Yvonne Treis, Christa Kilian-Hatz, personal communications). Latvian *vai* ‘or’ > interrogative marker (Stolz 1991b: 66–8). Basque *ala* ‘or’ has a limited interrogative function. Ex.

Basque (anonymous reader)

- (a) *beltz- a ala zuri- a?*
 black- DET or white- DET
 ‘red or white (wine)?’
- (b) *Nun ibili z- ara?*
 were move[PFV] 2:SG:ABS- AUX

lapur(r)-eta- n *ala?*
 thief- PL- LOC or

‘Where have you been? Among thieves?’

Turku PA (Arabic-based pidgin) *wala* ‘or’ > marker of yes-no questions. Ex.

Turku PA (Tosco and Owens 1993: 200, 202)

laam *da* *shuf* *anina* *wála?*
 animal DEF saw us Q

‘Did the animal see us?’

Further examples can be found, for example, in Hua and Khmer (anonymous reader). See also **NEGATION > S-QUESTION**. Apart from alternative conjunctions (‘or’), negation markers figure prominently in the genesis of polar question markers, and the two are often combined. Harris and Campbell (1995: 295) observe: “The expression *or not* functions in a way similar to tags in many languages. . . . We refer to this as an alternative tag.” Ex.

Modern Georgian (Harris and Campbell 1995: 295)

mova *vano,* *tu* *ara?*
 s/he:come Vano or not

‘Will Vano come, or not?’

Further investigation is required to study the exact nature of this process and the interaction of conjunctions and negation markers.

OWE > OBLIGATION

Breton *dle* ‘owe’ > marker of strong obligation (Denning 1987: 47). Latin *dēbēre* ‘owe’ > marker of strong obligation (Denning 1987: 47).

See Denning 1987 for further information. Note that the examples available so far are all from European languages. More research is required on the exact nature and the genetic and areal distribution of this process. See also **NEED**.

OWNER > INTENSIVE-REFL

Swahili *mw-enye* ‘owner (of)’, **mw-enye-we* (‘his/her owner’) > *mw-enyewe* ‘oneself’. Ex.

Swahili

Mimi *mw-enyewe*
 I C1- self
 ‘I myself’

Baka *mòmóló* ‘owner’, ‘possessor’, noun > *momóló* or *móló* ‘oneself’ (preceded by an emphatic personal pronoun). Ex.

Baka (Brisson and Boursier 1979: 260)

(a) *ma* à *muε* *ngbala,* *ma* *nyi*
 1:SG:ASP see:PAST machete 1:SG know

mòmóló ná ode.

owner ART NEG

'I've found a machete; the owner I don't know.'

(b) ?á buùle lo ngé mòmóló/móló!

3:SG cut:PAST tree 3:SG:EMPH self

'He cut the tree himself!'

Bagirmi *mala* 'master', 'owner', noun > emphasizing pronoun (Stevenson 1969: 46). Luo *wuon*, PL *wę-gí* 'owner', noun > emphatic reflexive (Tucker 1994a: 151–2). Kxoe *díxámà* 'owner', 'master', noun > "emphatic pronoun." Ex.

Kxoe (Köhler 1973a: 31a, 59)

xà-má díxámà

he owner

'he himself'

||Ani *díxà-* (+ person-gender-number marker) 'owner' > intensive reflexive marker. Ex.

||Ani (*Heine 1999a: 43*)

tsá díxà- tsì tamaxa xá- tsí- ka-xà

2:M:SG self- 2:M:SG also DEM- 2:M:SG- ADV

mún!

see

'Even you yourself will see [them]!'

Martin Haspelmath (personal communication), giving examples from Russian (*sam*) and Latin (*ipse*), observes that this process is not necessarily unidirectional, that is, that INTENSIVE-REFL markers may also be reversed. For more details, see Heine 2000b and Schladt 2000. We seem to be dealing with another instance of a more general process whereby relational nouns (including nouns for body parts) give rise to relational grammatical markers; compare **BOTTOM**; **SIDE**; **TOP**.

P

PASS ('to pass (by)', 'to pass through') > (1) AFTER

Lithuanian *praėti* 'pass' > *praėjus* 'after' (Haspelmath 1997b: 65). French *passer* 'pass by' > *passé* 'after'. Ex.

French (Haspelmath 1997b: 65)

passé une heure du matin

(passed one hour of morning)

'after one o'clock in the morning'

English *pass* > *past* 'after'; for example, *five minutes past twelve* (Haspelmath 1997b: 65).

Although there are only examples from European languages that have been found so far, we have included this case considering its conceptual plausibility. It appears to be an instance of a pathway whereby process verbs, on account of some salient semantic property, give rise to locative and temporal markers; see, for example, ARRIVE; CROSS; DESCEND; EXCEED; FOLLOW; RESEMBLE.

PASS ('to pass (by)', 'to pass through') > (2) COMPARATIVE

Twi *seŋ* 'pass on', 'surpass', 'pass by', 'pass away', verb > comparative marker. Ex.

Twi (Lord 1989: 245–6)

(a) *asu bi seŋ ne daŋ akyi.*
 river a pass his house behind
 'A river flows behind his house.'

(b) *me- seŋ wo adɔw.*
 1:SG-surpass you tilling
 'I till more than you do.'

Baka *wɔtɔ* 'pass', 'go on', 'overtake', verb > comparative marker. Ex.

Baka (Brisson and Boursier 1979: 486f.)

(a) *bìtì à wɔtɔ-ngì batà.*
 night ASP pass- PAST three
 'Three days have passed.'

(b) *b̀̀ngɔ̀ k̀̀è bíbà à wɔtɔ yékè.*
 dress DEM white ASP pass DEM
 'This dress is brighter than that.'

Kisi *hìd̀̀ù* 'pass', verb > comparative marker. Ex.

Kisi (Childs 1995: 20)

ò hìd̀̀ù yá nàŋ̀̀ɔ̀.
 she pass me goodness
 'She's more handsome than I.'

Turku PA *fut* 'pass', verb > 'more than', comparative marker of inequality. Ex.

Turku PA (Tosco and Owens 1993: 210–1)

ínte awán fut kedabgel.
 you bad pass Kedabgel
 'You are worse than Kedabgel.'

Ndjuka CE *pasa* 'pass' (< English *pass*) > 'more than', comparative marker of inequality. Ex.

Ndjuka CE (Huttar and Koanting 1993: 165)

A dagu ya bigi pasa den taawan
 the:SG dog here big pass the:PL other:one

or

| | | | | | |
|-------------|--------------|-----------|-------------|------------|---------------|
| A | <i>dagu</i> | <i>ya</i> | <i>pasa</i> | <i>den</i> | <i>taawan</i> |
| the:SG | dog | here | pass | the:PL | other:one |
| <i>anga</i> | <i>bigi.</i> | | | | |
| with | big | | | | |

'This dog is bigger than the others.'

For more details, see Stassen 1985 and Heine 1997b. This appears to be a grammaticalization that is common in African languages but less common elsewhere. Furthermore, this is a common channel of grammaticalization in Atlantic creoles, see, for example, Holm 1988: 188–90. It is an instance of a process whereby a verb, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; see for example, ARRIVE; CROSS; DESCEND; EXCEED; FOLLOW; RESEMBLE.

PASS ('to pass (by)', 'to pass through') > (3) PAST

Swahili *ku-pita* 'to pass' is used to refer to past events and time spans. Ex.

Swahili

| | |
|---------------|-----------------------|
| <i>mw-ezi</i> | <i>u- li- o- pita</i> |
| c3- month | C3-PAST-REL-pass |
| 'last month' | |

Compare English *past*, which is etymologically related to *pass*. French *passé*, perfect participle of *pass-er* 'to pass' > 'past time'. Note that these examples do not involve verbal tense and, in fact, no language has been found so far where a PASS-verb has given rise to a past tense marker. More research is required on the exact nature and the genetic and areal distribution of the present process.

PASS ('to pass (by)', 'to pass through') > (4) PATH

Turkish *geç* 'to pass', verb > *geç-e* 'past' (Svorou 1994: 112). Ewe *tó* 'pass', 'go through', action verb > 'through', preposition (Lord 1989: 252; Heine et al. 1991: Chapter 7). More examples are required to document this pathway of grammaticalization. Nevertheless, it appears to be an instance of a more general process whereby verbs denoting location or motion serve as structural templates to express relational (adpositional) concepts; compare ARRIVE; COME FROM; COME TO; GO TO; LEAVE.

PEOPLE > PLURAL

!Xóó *túu* 'people' > *-tú*, plural suffix of human nouns (noun class 4; Tom Güldemann personal communication). Seychelles CF *ban* 'group (of people)' (< French *bande*), noun > plural marker of definite nouns. Ex.

Seychelles CF (Corne 1977: 13–14, 34)

| | | |
|-------------------|-------------|----------|
| (a) <i>ban</i> | <i>koma</i> | <i>u</i> |
| (people | how | you) |
| 'people like you' | | |

- (b) *ban* *pirog*
 (PL canoe)
 ‘the canoes’

In the Sema variety of Naga Pidgin (Sreedhar 1977: 137), human plurals are marked with the item *log* ‘people’; for example, *suali* ‘girl’, *suali log* ‘girls’ (see Janson 1984: 318 and Romaine 1988: 137).

Conceivably, this process is related to (>) CHILDREN > PLURAL, where also the plural form of a human noun is grammaticalized to a plural marker. More research is required on the exact nature and the genetic and areal distribution of this grammaticalization, which might be an instance of a more general process whereby generic nouns give rise to pronominal and eventually to inflectional categories; compare MAN; PERSON; THING.

PERFECT > (1) PAST

This grammaticalization has been discussed by several authors; see Fleischman 1983; Dik 1987; Bybee et al. 1994. The last-named authors describe this process in the following way (note that their “anterior” corresponds to our “perfect”):

The change of an anterior to a past or perfective is typical of grammaticalization changes. On the semantic level, the change is clearly a generalization of meaning, or the loss of a specific component of meaning: the anterior signals a past action that is relevant to the current moment, while the past and perfective signal only a past action. The specification of current relevance is lost. The meaning generalizes in the sense that the past or perfective gram expresses a more general meaning that is compatible with more contexts. (Bybee et al. 1994: 86)

The periphrastic resultative/perfect construction (‘have’ or ‘be’ + past participle) of Germanic and Romance languages, for example, has occasionally extended its use to marking past tense: in Modern Colloquial German, it is taking over the functions of the older past tense (Bybee et al. 1994: 85). Similarly, what Westermann (1907: 139) calls the “Dahome” dialect of Ewe appears to have experienced a shift from perfect to past marker, and in Atchin, the auxiliary *ma* ‘come’ merges with pronominal forms to make a past tense auxiliary (Bybee et al. 1994: 86). This is probably part of a more general process whereby verbal aspect markers may be further grammaticalized to tense markers (see Comrie 1976: 99–101; Bybee 1985a: 196; Bybee and Dahl 1989: 56–7); see also CONTINUOUS > PRESENT.

PERFECT > (2) PERFECTIVE

Perfect markers may develop into either perfective or past tense markers, a process that has been described especially by Bybee et al. (1994);⁴⁶ see under PERFECT > PAST. For example, the periphrastic resultative/perfect construction

⁴⁶ Our term “perfect” corresponds to what Bybee et al. (1994) call the “anterior.”

(‘have’ or ‘be’ + past participle) of Germanic and Romance languages has given rise to perfective uses in some European languages. Thus, in Modern Spoken French, this construction has been generalized to a perfective, replacing the older inflectional perfective (see Bybee et al. 1994: 85–7 for more details).

PERSON (human being) > (1) INDEFINITE PRONOUN

Albanian *njeri* ‘person’ > ‘somebody’, indefinite pronoun. Ex.

Albanian (Stolz 1991a: 12)

| | | |
|---------------------------|---------------|---------------|
| S’ | <i>pa-shë</i> | <i>njeri.</i> |
| NEG | see-AOR:1:SG | someone:ACC |
| ‘I haven’t seen anybody.’ | | |

Portuguese *pessoa* ‘person’, noun > ‘(some)one’, indefinite pronoun. Ex.

Portuguese (Stolz 1991a: 13)

| | | | |
|-------------------------|---------------|------------|----------------|
| <i>a</i> | <i>pessoa</i> | <i>não</i> | <i>dev- e</i> |
| DET:F | person:F | NEG | must-3:SG:PRES |
| <i>preocup-ar- se.</i> | | | |
| WORRY- INF-REFL | | | |
| ‘One should not worry.’ | | | |

Swahili *mtu* ‘person’, noun > indefinite pronominal in existential expressions. Ex.

Swahili

| | | | |
|----------------------|---------------|-----------------------|--------------|
| <i>pa- na</i> | <i>m- tu.</i> | <i>si- on- i</i> | <i>m-tu.</i> |
| C16-have | C1-person | 1:SG:NEG-see-NEG | C1-person |
| ‘There is somebody.’ | | I don’t see anybody.’ | |

Nzakara **nj* ‘person’, noun > indefinite pronoun (Heine and Reh 1984: 224).

Baka *bo* ‘person’, ‘man’, ‘being’, noun > ‘somebody’, indefinite pronoun. Ex.

Baka (Christa Kilian-Hatz, personal communication)

| | | | | |
|--------------------------------------|------------|------------|-----------|-------------|
| (a) <i>nga</i> | <i>bo,</i> | <i>nga</i> | <i>sɔ</i> | <i>ode.</i> |
| 1:PL:EXCL | person | 1:PL:EXCL | animal | NEG |
| ‘We are people; we are not animals.’ | | | | |

| | | |
|----------------------|-----------|---------------|
| (b) <i>bo</i> | <i>ʔá</i> | <i>kɔtɔɛ.</i> |
| person | 3:SG | come:PAST |
| ‘Somebody has come.’ | | |

| | | | | | |
|-----------------------|-----------|------------|-----------|-----------|-----------|
| <i>ma</i> | <i>à</i> | <i>sià</i> | <i>bo</i> | <i>kè</i> | <i>ʔé</i> |
| 1:SG | ASP | see | person | DEM | 3:SG |
| <i>bà</i> | <i>dɔ</i> | <i>nè.</i> | | | |
| ASP | come | REL | | | |
| ‘I see someone come.’ | | | | | |

Bulu *môt* ‘person’, noun > ‘somebody’, indefinite pronoun (Hagen 1914: 265, 353).

Probably related to this evolution is the grammaticalization of PERSON nouns to impersonal markers; for example, Baka *wó* ‘person’, noun > impersonal pronoun (‘one’). Ex.

Baka (Christa Kilian-Hatz, personal communication)

| | | | | | |
|-----------------|------------|----------|-----------|--------------|----------|
| <i>wó</i> | <i>ndé</i> | <i>a</i> | <i>ye</i> | <i>pɔ̀ki</i> | <i>à</i> |
| man | without | INF | love | honey | LOC |
| <i>mo- nda.</i> | | | | | |
| door-house | | | | | |

‘One does not like the kind of honey that sticks on the house door.’

Turkish *insan* ‘human being’ > ‘one’, indefinite pronoun in impersonal passive constructions (Lewis [1967] 1985: 77).

See also Lehmann 1982: 51–2; Heine and Reh 1984; Haspelmath 1997a: 182. This grammaticalization appears to be an instance of a more general process whereby generic nouns give rise to pronominal categories; compare MAN; PEOPLE; THING.

PERSON (human being) > (2) PERS-PRON, FIRST PLURAL

!Xun, northern dialect *dju* ‘person’, ‘people’ > first person plural exclusive pronoun. Ex.

!Xun, northern dialect (Bernd Heine, field notes)

| | | | |
|--------------|------------|--------------|-----------|
| <i>dju-</i> | <i>tca</i> | <i>Dúmbà</i> | <i>gè</i> |
| 1:PL:EXCL-DU | | Dumba | stay |

‘I am staying with Dumba’ (lit.: ‘We [two] and Dumba stay’)

Kono *mò̀̀* ‘man’, ‘person’, ‘people’, noun > *mó̀̀* ‘we (INCL)’, first person plural inclusive pronoun. Ex.

Kono (Donald A. Lessau, personal communication)

(a) *mò̀̀* *kúndú-nù*

person short- PL
‘short people’

(b) *mó̀̀* *dè* *án* *nè.*

1:PL:INCL mother EMPH here
‘This is our mother.’

Susu *mikhi* ‘man’, ‘person’; *mikhi mundue?* ‘which people?’ > *mukhu* ‘we’, ‘us’, ‘our’, first person plural exclusive pronoun (Friedländer 1974: 25); there is a common free variation in Central Mande between the high vowels *i* and *u*. Ex.

Susu (Friedländer 1974: 28)

mukhu khunyi
‘our heads’

Colloquial French *on* impersonal pronoun (< Latin *homo* ‘person’, ‘man’) > ‘we’, first person plural pronoun. More research is required on the exact nature and

the genetic and areal distribution of this process, which appears to be an instance of a more general process whereby generic nouns give rise to pronominal categories; compare **MAN**; **PEOPLE**; **THING**.

PERS-PRON, PLURAL > SINGULAR (HONORIFIC)

English *you*, French *vous* 'you' (plural), personal pronoun > 'you', singular addressee. German *sie* 'they' > *Sie* 'you' (singular addressee).⁴⁷

This grammaticalization, where a PLURAL personal pronoun serves to refer to a singular referent, appears to be quite widespread. A more detailed cross-linguistic study would be desirable.

PERS-PRON, THIRD > (1) AGREEMENT

Third person (singular) subject pronouns may cliticize on the verb and become a largely or entirely obligatory part of the finite verbal word, no longer expressing distinctions of number or gender. Of the French personal pronouns *il* 'he' and *elle* 'she' (themselves derived from a Latin distal demonstrative; see **DEMONSTRATIVE > THIRD PERS-PRON**), *il* has become an agreement marker in non-Standard French, bound to the verb and no longer distinguishing number or gender. Ex.

French (Lambrecht 1981: 40; Hopper and Traugott 1993: 17)

Standard French

| | | | | |
|---------------|--------------|--------------|------------|------------------|
| (a) <i>La</i> | <i>jeune</i> | <i>fille</i> | <i>est</i> | <i>venue</i> |
| the | girl | | is | come |
| <i>hier</i> | <i>soir.</i> | <i>Elle</i> | <i>est</i> | <i>danseuse.</i> |
| yesterday | evening | she | is | dancer |

'The girl came yesterday evening. She is a dancer.'

Non-Standard French

| | | | | |
|---------------|--------------|-----------|------------|--------------|
| (b) <i>Ma</i> | <i>femme</i> | <i>il</i> | <i>est</i> | <i>venu.</i> |
| my:F | wife | AGR | is | come |

'My wife has come.'

English *he* has turned in Tok Pisin PE into a kind of redundant marker *i*, referred to as a predicate marker: "The particle *i*, now normally analyzed in Tok Pisin grammar as a 'predicate marker', had its origin in the cliticization of the old subject pronoun *i* (< Engl. *he*), later replaced as a subject pronoun by *em* (< Engl. *him* or *them*)" (Sankoff 1979: 28).⁴⁸ Ex.

⁴⁷ An anonymous reader of this book observed that Turkish, Basque, and (more recently) Welsh are also languages in which a second person plural pronoun has become a polite second singular pronoun.

⁴⁸ Sankoff (1979: 28) adds that the *i* particle, having become redundant, is now subject to phonological deletion, so that its presence is no longer obligatory.

Tok Pisin PE (Sankoff 1979: 28)

Man i-mekim singsing long Mbabmu, meri em i-go long em, em i-pekpek blut. . . .

‘Men utter a spell over Mbabmu; if a woman goes near them, she will have dysentery. . . .’

The evidence available suggests in fact that third person singular pronouns are the most common source for verbal subject agreement markers. This grammaticalization appears to be a classical instance of desemanticization, whereby the main semantic content is bleached out, resulting in a general relational marker (see Lehmann 1982: 42f.).

PERS-PRON, THIRD > (2) COPULA

Concerning this grammaticalization, according to which third person pronouns develop into copulas, see Li and Thompson 1977, which provides examples from Hebrew and Palestinian Arabic; see also Diessel 1999b: 143ff.⁴⁹ The following example from Modern Hebrew illustrates the initial stage of this process, where the item *hu* ‘he/is’ can be interpreted alternatively as a third person pronoun or a copula.

Modern Hebrew (Glinert 1989: 188f.; quoted from Diessel 1999b: 144)

| | | | |
|------------|---------------|------------|----------------|
| <i>ha-</i> | <i>sha'on</i> | <i>hu</i> | <i>matana.</i> |
| the- | clock:M:SG | is/he:M:SG | present:F:SG |

‘The clock is a present.’

A different source for copulas can be seen in demonstratives (see **DEMONSTRATIVE > COPULA**). Now, since demonstratives may give rise to third person pronouns, it is not always easy to determine which of the two developments was involved in a given case. However, Diessel (1999b: 145ff.) emphasizes that the development from identificational demonstrative to copula differs from the one leading from personal pronoun to copula, as shown, for example, in a contrasting agreement structure.

PERS-PRON, THIRD PLURAL > (1) IMPERSONAL

Ewe *wó-* ‘they’, personal pronoun > impersonal marker (“agent suppression”). Modern Greek *-an* third person plural pronominal suffix > impersonal marker Ex.

Modern Greek (Haspelmath 1990: 49)

| | | |
|-----------|--------------------|------------|
| <i>Su</i> | <i>telefoni-s-</i> | <i>an.</i> |
| YOU:DAT | phone-AOR-3:PL | |

‘Someone called you.’

⁴⁹ There is a possible counterexample to this grammaticalization: the Chinese copular verb *shi* has been claimed to be derived from the pronoun *shi* (see Peyraube 1999: 191).

German *sie* (third person plural pronoun) in some of its uses serves as an impersonal pronoun. Ex.

German

| | | | | | |
|-------------|--------------------|------------|----------------|------------|------------|
| <i>Sie</i> | <i>haben</i> | <i>ihn</i> | <i>gestern</i> | <i>mit</i> | <i>dem</i> |
| they | have | him | yesterday | with | the |
| <i>Auto</i> | <i>angefahren.</i> | | | | |
| car | hit | | | | |

'Someone hit him yesterday with a car.'

Similarly English *they* in certain uses; for example, *A haberdashery is a place where they sell sewing equipment* (anonymous reader).

Basque (anonymous reader)

| | | | | |
|------------|-----------|-----------|------------|-----------|
| <i>Hil</i> | <i>z-</i> | <i>u-</i> | <i>te-</i> | <i>n.</i> |
| kill[PFV] | PAST-AUX- | 3:PL:ERG- | PAST | |

'They killed him.' (= 'He was killed.')

In a number of creole languages, this seems to be a common grammaticalization process. Ex.

Haitian CF (Muysken and Veenstra 1995)

| | | | | | | |
|-----------|------------|-------------|------------|-----------|-----------|-------------|
| <i>Se</i> | <i>sou</i> | <i>chen</i> | <i>mèg</i> | <i>yo</i> | <i>wè</i> | <i>pis.</i> |
| FOC | LOC | dog | thin | 3:PL | see | flee |

'It's on a thin dog that the flees can be seen.'

This process can be observed in quite a number of languages, even if grammarians do not always take notice of it. In some languages the process has gone further and has given rise to a passive construction; see the following entry.

PERS-PRON, THIRD PLURAL > (2) PASSIVE

Maasai, dialect of Maa **ki* 'they', third person plural pronoun > passive suffix *-ki* (Greenberg 1959; Heine and Claudi 1986: 79–84). Kimbundu *a-* 'they', verbal prefix > passive marker. Ex.

Kimbundu (Givón 1979a: 188, 211)

- (a) *Nzua* *a-* *mu-* *mono.*
 (Nzua 3:PL- 3:SG:OBJ-see)
 John they-him- saw
 'John, they saw him.'
- (b) *Nzua* *a-* *mu-* *mono* (*kwa meme*).
 (Nzua PASS-3:SG:SUBJ- see (by me))
 John they-him- saw
 'John was seen by me.'

Luba *ba-* 'they', third person plural pronoun > passive marker. Ex.

Luba (Heine and Reh 1984: 99)

bà- sùm-ìne mu- âna kù- ò nyòka.
 they-bite- PERF CI- child there:where-is snake

‘The child has been bitten by a snake.’

Ewe wó- ‘they’, third person plural pronoun > passive marker in specific uses.⁵⁰
 Ex.

Ewe (Heine and Reh 1984: 99)

wó- dzi kofi. . . .
 they-give:birth Kofi

‘Kofi was born. . . .’

Nuer -kè ‘they’, personal suffix > passive marker. Ex.

Nuer (Heine and Reh 1984: 100)

càm(-kè) náàdh è nyiidh.
 eat(-they) people by gnats

‘People are bitten (eaten) by gnats.’

Hungarian -ik third person plural, definite object > third person singular passive marker.⁵¹ For classical treatments of this grammaticalization path, see Greenberg 1959 and Givón 1979a.

PERS-PRON, THIRD PLURAL > (3) PLURAL

Lugbara èi ‘they’, personal pronoun > -i nominal plural suffix (Crazzolara 1960: 19). Susu -e ‘person’; ‘they’ > plural suffix (Friedländer 1974: 19, 25). Bambara -u, Malinke -ru, -lu. Dioula -lu ‘they’ > plural marker (Brauner 1974: 26). Ewe wó- ‘they’, personal pronoun > -wó nominal plural suffix. Baka wó ‘they’, third person plural subject pronoun > -o (-ó after vowels having high tone), nominal plural suffix. Ex.

Baka (Christa Kilian-Hatz, personal communication)

(a) wósè wó à gɔ.
 woman 3:PL ASP go

‘The women are going.’

(b) wósè- o (wó) à gɔ.
 woman-PL 3:PL ASP go

‘The women are going.’

Mupun mo, third person plural subject or object pronoun > nominal plural marker (enclitic). Ex.

⁵⁰ No explicit agent may be mentioned in this Ewe construction.

⁵¹ This example was suggested by an anonymous reader of an earlier version of this work.

Mupun (Frajzyngier 1993: 160–2)

| | | | | | |
|-------------|-----------|--------------|-----------|--------------|-----------|
| <i>saar</i> | <i>mo</i> | <i>jirap</i> | <i>ɕe</i> | <i>wuraŋ</i> | <i>mo</i> |
| hand | PL | girl | REL | tall | PL |
| 'hands' | | 'tall girls' | | | |

Negerhollands CD *sini* 'they', personal pronoun > nominal plural marker (mostly on definite noun phrases). Ex.

Negerhollands CD (Stolz 1986: 122, 131)

- (a) *Di kabai a sle:p sini de: bus.*
 (DET horse PERF pull 3:PL through bush)
 'The horses pulled them through the forest.'
- (b) *Frufru werá ham a jak*
 (morning again 3:SG PERF hunt)
ši kabrita sini a sabán.
 (POSS goat PL PREP savannah)
 'In the morning he drove his goats again into the savannah.'

Krio CE *dɛm* 'they', personal pronoun > nominal plural enclitic. Ex.

Krio CE (Todd 1979: 288)

- (a) *dɛm bin futam.*
 (they TNS shot)
 'He/She/It was shot (by them).'
- (b) *mi padi dɛm buk mi padi dɛm buk dɛm*
 (my friend they book) (my friend they book they)
 'my friends' book' 'my friends' books'

See Thiele 1991 for more examples from Portuguese-based and other creoles; see also Romaine 1988: 137.

This grammaticalization appears to be a classical instance of desemantization, whereby the main semantic content is bleached out, resulting in a number marker.

PIECE > CLASSIFIER

Chinese *kuài* 'piece', 'lump', 'chunk' > classifier for three-dimensional objects (Bisang 1999: 133). Vietnamese *cái* 'piece', 'jump', 'blow' > classifier for nonliving things (Löbel 1996: 129, 172). More research is required on the exact nature and the genetic and areal distribution of this process. Concerning the rise and development of classifiers in Chinese, see Peyraube 1998.

This grammaticalization is part of a more general process whereby certain nouns, on account of some specific semantic characteristic, are recruited as structural templates for a folk taxonomic classification of nominal concepts; see also **BRANCH**; **CHILD**; **MAN**; **SONG**; **TREE**; **WOMAN**. More research is required on the genetic and areal distribution of this process.

PLACE > (1) CAUSE

Kono *kènà* ‘place (of)’ > *kènà mín mbè* (‘place’ + relative clause marker; lit.: ‘the place where’) ‘because’. Ex.

Kono (Donald A. Lessau, *personal communication*)

| | | | | | | |
|-----|---|------------|-----------|------------|-----------|-----------------|
| (a) | <i>à</i> | <i>èé</i> | <i>cé</i> | <i>ciá</i> | <i>cè</i> | <i>yén- daä</i> |
| | 3:SG | NEG | can | ring | DEM | find-? |
| | <i>kènà</i> | <i>mín</i> | | | | |
| | place | REL | | | | |
| | ‘(a place) where he cannot find the ring’ | | | | | |

| | | | | | |
|-----|--|-----------------|----------|------------|---------------------|
| (b) | <i>àn</i> | <i>á</i> | <i>à</i> | <i>iyá</i> | <i>kènà mín mbè</i> |
| | 3:PL | TAM | 3:SG | welcome | because |
| | <i>mànsá</i> | <i>cè . . .</i> | | | |
| | chief | DEM | | | |
| | ‘They welcomed him because the chief. . . .’ | | | | |

Bambara *yòrò* ‘place’, relational noun, *ò yòrò kama* ‘for this place’ > *ò yòrò kama* ‘therefore’, conjunction. Ex.

Bambara (Ebermann 1986: 55, 177)

| | | | | | |
|-----|---------------------------------------|-------------|-----------|--------------|---------------------------|
| (a) | <i>à</i> | <i>yòrò</i> | <i>ká</i> | <i>jàn.</i> | |
| | (3:SG | place | COP | far) | |
| | ‘His place is far away.’ | | | | |
| (b) | <i>à</i> | <i>yé</i> | <i>n</i> | <i>nèni,</i> | <i>ò yòrò kama. . . .</i> |
| | (3:SG | TAM | 1:SG | insult | therefore) |
| | ‘He has insulted me therefore. . . .’ | | | | |

Note that these examples all involve one language family and, hence, are not suggestive of a cross-linguistically relevant process. The reason for nonetheless presenting this case is that nouns meaning ‘place’ commonly acquire some locative significance (see PLACE > LOCATIVE), and locative markers appear to be a fairly common source for causal markers (see LOCATIVE > CAUSE).

PLACE > (2) INSTEAD

French *au lieu de* ‘in place of’ > ‘instead of’. German *anstelle von* ‘in place of’ > ‘instead of’. Turkish *yer* ‘place’ > *yerine* (place + LOC), postposition ‘instead of’ (Lewis [1967] 1985: 94). Western Modern Armenian *teł-* ‘place’ > ‘instead of’, postposition, when it takes no article (Hagège 1993: 206). Bulgarian *mjasto/mesto* ‘place’, noun > *vmesto* (*v* ‘in’ + *mesto* ‘place’) ‘instead of’, preposition. Ex.

Bulgarian

| | | | |
|-------------------------------------|----------------|---------------|-------------------|
| <i>Iskam</i> | <i>jabälki</i> | <i>vmesto</i> | <i>portokali.</i> |
| want:1:SG:PRES | apples | in:place | oranges |
| ‘I want apples instead of oranges.’ | | | |

Hungarian *hely* 'place' > *hely-ett* 'instead' (anonymous reader). Seychelles CF *dâ plas* 'in place' > 'instead'.⁵² Ex.

Seychelles CF (Corne 1977: 144)

| | | | | | |
|----------------|---------------|-----------|---------------|----------|----------|
| <i>dâ plas</i> | <i>u</i> | <i>al</i> | <i>lekol,</i> | <i>u</i> | <i>n</i> |
| (instead | 2:SG | go | school | 2:SG | CPL |
| <i>al</i> | <i>bazar.</i> | | | | |
| go | market) | | | | |

'Instead of going to school, you went to the market.'

We seem to be dealing with another instance of a more general process whereby relational nouns (including nouns for body parts) give rise to relational grammatical markers; compare **BOTTOM**; **SIDE**; **TOP**.

PLACE > (3) LOCATIVE

Kpelle *p̄* 'place' > 'at', 'toward', 'to', postposition (Westermann 1924: 12). Vai *tina* 'place', relational noun > locative postposition. Ex.

Vai (Koelle [1854] 1968: 38, 221)

- (a) *mú tā dǎ tina dʒé!*
 (1:PL:GO festivity-place see)
 'Let us go and see the place of festivity!'
- (b) *mu táwa soé tina!*
 (1:PL go:EMPH hole:DEF place)
 'Let us go to the hole!'

Vai *bārā* 'place', 'large open place', 'yard', noun > locative postposition. Ex.

Vai (Koelle [1854] 1968: 38, 145)

| | | |
|---------------|-----------|---------------|
| <i>ī</i> | <i>ná</i> | <i>mbara!</i> |
| (2:SG | come | 1:SG:place) |
| 'Come to me!' | | |

Gurenne *zia* 'place', 'side', noun > 'at', 'with', 'to', adposition (Rapp 1966). Lingala *esíká* 'place' > *esíká ya* (place GEN) 'at', preposition (van Everbroeck 1958: 136). Finnish *kohta* 'place', *kohdalla* 'at the place' > *kohdalla* 'at', locative postposition governing genitive case. Ex.

Finnish (Blake 1994: 167)

| | | |
|----------------|----------|-----------------|
| <i>talo-</i> | <i>n</i> | <i>kohdalla</i> |
| house-GEN | | place:ADE |
| 'at the house' | | |

We are dealing with another instance of a more general process whereby relational nouns (including nouns for body parts) give rise to relational (typically spatial or temporal) grammatical markers; compare **BOTTOM**; **SIDE**; **TOP**.

⁵² In addition, Seychelles CF has a second replacive marker *olie* 'instead', which appears to have been inherited from French (< *au lieu*; see Corne 1977: 144).

A-POSSESSIVE > PARTITIVE

Harris and Campbell (1995: 339–41) observe that the “development of a partitive out of the expression of a partial through a genitive or through a locative (in roughly the meaning ‘from’) . . . is a good candidate for a unidirectional change, to which we know no counterexamples.” See also Harris and Campbell 1995: 362–3 for examples from Finno-Ugric. That partitives may be historically derived from A-POSSESSIVE (genitive) markers is substantiated by these authors with the following examples: (a) In Lithuanian, a partitive use has developed out of the inherited Indo-European genitive. (b) The “partitive” article of French can be traced back to a combination of the definite article plus the genitive. Since A-POSSESSIVE markers may go back to (>) ABLATIVE markers, we seem to be dealing with a more general grammaticalization chain ABLATIVE > A-POSSESSIVE > PARTITIVE. Still, more examples would be desirable to determine the significance of this pathway. It would seem that there is not necessarily an intermediate A-POSSESSIVE; as appears to be the case in some other grammaticalization processes, the evolution may proceed straight from the initial to the final meaning.⁵³

H-POSSESSIVE⁵⁴ > (1) EXIST

French *avoir* ‘to have’ > ‘exist’. Ex.

French (Heine 1997a: 95)

(a) *Il* *a* *deux* *enfant-s.*
 he has two child- PL
 ‘He has two children.’

(b) *Il* *y* *a* *deux* *enfant-s.*
 it there has two child- PL
 ‘There are two children.’

Colloquial (southern) German *haben* ‘to have’ > ‘exist’. Ex.

Da *hat* *es* *zwei* *Kind-er.*
 there has it two child-PL
 ‘There are two children.’

Swahili *-na* ‘be with’, ‘have’ > ‘exist’ (with locative subject referents). Ex.

Swahili

(a) *ni-na* *chakula.*
 I- be:with food
 ‘I have food.’

⁵³ The latter is suggested by observations made by Harris and Campbell (1995: 363), who note with reference to the evolution in Mordvin, for example, “The Mordvin ablative can be used as a ‘restricting’ object case, for example where ‘to eat of/from bread’ develops the meaning ‘eat some (of the) bread’, from which the grammatical function of the partitive case developed.”

⁵⁴ This term stands for predicative possession of the HAVE-type (e.g., *I have a dog*); see Heine 1997a.

- (b) *ku- na chakula.*
 LOC:C17-be:with food
 'There is food.'

This is a fairly widespread grammaticalization in creole languages. Guyanese CF *gê* 'have' > 'exist'. Ex.

Guyanese CF (Corne 1971: 91, 95)

- (a) *i fini gê trua.*
 (3:SG come:from have three)
 'He just had three of them.'
- (b) *i pa gê pies.*
 (3:SG NEG have piece)
 'There is none.'

According to Bickerton (1981: 66), the usual creole equivalent of existential 'there is' is '(they/it) have'. Examples are Guyanese CE *get*, Haitian CF *gê*, Papiamentu CS *tin*, São Tomense CP (São Tomé) *te*, Bahamian CE *have*, Negerholands CD *die hab*, and Ndjuka CE *a abi* (Holm 1988: 178). Ex.

Guyanese CE (Bickerton 1981: 66–7)

dem get wan uman we get gyal-pikni.
 (there is a woman who has daughter)
 'There is a woman who has a daughter.'

Papiamentu CS (Bickerton 1981: 66–7)

tin un muhe cu tin un
 have a woman who have a
yi-u muhe.
 child-woman
 'There is a woman who has a daughter.'

Note that in Chinese, the same form, *YOU* is used for 'to have' and 'there exists', but the chronology between the two is unclear (Alain Peyraube, personal communication). See Heine 1997a: 202ff. for a discussion of this process. What appears to trigger the process is that instead of a typically human possessor there is an inanimate/impersonal or a locative participant. The impression might arise that this process contradicts the unidirectionality principle since there is also a process showing the reverse directionality: EXIST > H-POSSESSIVE. However, we are not dealing with a violation of this principle since the present process concerns "nuclear" (one-participant) existence, rather than "extended" (two-participant) existence. For details, see Heine 1997a: 94–6; see also EXIST.

H-POSSESSIVE⁵⁵ > (2) FUTURE

Latin infinitive + *habere* 'to have' > Spanish *-ré* future (Pinkster 1987); Latin (*ego*) *cantare habeo* 'I have to sing' > French *je chanter-ai* 'I'll sing', > Portuguese

⁵⁵ This term stands for predicative possession of the HAVE-type (e.g., *I have a dog*); see Heine 1997a.

cantarei 'I will sing' (Fleischman 1982a: 115). Nyabo *kō* 'have' > future tense marker. Ex.

Nyabo (Marchese 1986: 139)

| | | | | | |
|----|-----|---------|----|----|--------|
| ō | kō | b- | ō | mū | plībō. |
| he | has | that-he | go | | Pleebo |

'He will go to Pleebo.'

Neyo *ka* 'have' > future tense marker (Marchese 1986: 76). Lakota Dida *kā* 'have' > *ká*, future tense marker (Marchese 1986: 76). Vata *ka* 'have' > *ká*, future tense marker (Marchese 1986: 76). Bété *kà* > *ká*, future tense marker (Marchese 1986: 76). Godié *kλ* 'have' > *ká*, future tense marker. Ex.

Godié (Marchese 1986: 76)

| | | |
|-------|------|-------|
| (a) ɔ | kλ | moní. |
| he | have | money |

'He has money.'

| | | | |
|-------|-----|------|-----|
| (b) ɔ | ká | sλ | pt. |
| he | AUX | down | lie |

'He is going to lie down.'

Bulgarian *ima* 'have' (3:SG:PRES) + *da* (particle) + main verb > future (colloquial). Ex.

Bulgarian

| | | |
|----------------|----------------|---------------|
| (a) <i>Toj</i> | <i>ima</i> | <i>kniga.</i> |
| he | have:3:SG:PRES | book |

'He has a book.'

| | | |
|----------------|-----------|-------------------|
| (b) <i>Ima</i> | <i>da</i> | <i>xodja.</i> |
| have:3:SG:PRES | PART | go:IMPV:1:SG:PRES |

'I will go.'

Bulgarian *njamam* 'have not' + *da* (particle) > *njama da*, negative future marker. Ex.

Bulgarian (Kuteva 1995: 209)

| | | |
|--------------|-----------|--------------------|
| <i>njama</i> | <i>da</i> | <i>dadeš.</i> |
| have:not | PART | give:PFV:2:SG:PRES |

'You will not give.'

Compare Fleischman 1982a, 1982b; and Pinkster 1987; for more details on Romance languages, see Klausenburger 2000. While this grammaticalization is common in Romance languages, for example, it does not appear to be a salient pathway for the development of future tense markers cross-linguistically.

H-POSSESSIVE⁵⁶ > (3) OBLIGATION

German *haben* 'have' + *zu* 'to' > auxiliary of obligation. Ex.

⁵⁶ This term stands for predicative possession of the HAVE-type (e.g., *I have a dog*); see Heine 1997a.

German

- (a) *Er hat ein Auto.*
 he has one car
 'He has a car.'
- (b) *Er hat zu gehorchen.*
 he has to obey
 'He has to obey.'

English *have + to*, obligation marker, as, for example, in *You have to wash your hair*. Nyabo *ble* 'have' > *ɓlɛ*, obligation marker. Ex.

Nyabo (Marchese 1986: 140)

- | | | | | | | |
|----|------|-----|---------|-----|-------|-----|
| ɓ | ɓlɛ̃ | ɣɛ̃ | b- | ɓ | tɔ̃ɔ̃ | nĩ. |
| he | have | ? | that-he | buy | fish | |
- 'He must/is supposed to buy fish.'

Latin *habēre* 'have' + infinitive, obligation marker. Ex.

Latin

- venire habes.*
 come:INF have:2:SG
 'You have to come.'

Koyo *ha* 'have' > obligation marker. Ex.

Koyo (Marchese 1986: 141)

- | | | | | | |
|-----|-----|----|-----|------|-------|
| Aɓi | ha | o | ka | bɔɣu | ciya. |
| Abi | has | he | AUX | book | learn |
- 'Abi must learn to read and write.'

Kagbo *kà* 'have' > obligation marker. Ex.

Kagbo (Godié dialect; Marchese 1986: 140–1)

- | | | | | |
|----|-----|------|-------------|-----|
| ɔ | kà | sáká | ɓli- | lɪ. |
| he | has | rice | pound-NOMIN | |
- 'He has to pound rice.'

Yoruba *ní* 'have' > obligation marker. Ex.

Yoruba (Marchese 1986: 138)

- (a) *mo ní bàtà.*
 1:SG have shoes
 'I have shoes.'
- (b) *mo ní l'átí lọ.*
 1:SG have to:go
 'I have to go.'

Spanish *tener* 'to hold', 'to have' > obligation auxiliary *tener que* + INF 'have to', 'must' (Halm 1971: 117). Negerhollands CD *ha* 'have' + *fo*, conjunction > 'must', obligation marker.⁵⁷ Ex.

Negerhollands CD (Stolz 1987b: 175)

| | | | | |
|----------------------|-----------|-----------|-----------|-------------|
| <i>Mi</i> | <i>sa</i> | <i>ha</i> | <i>fo</i> | <i>loo.</i> |
| I | FUT | have | PART | go |
| 'I will have to go.' | | | | |

For more details on Romance languages, see Klausenburger 2000. This grammaticalization does not appear to be confined to H-POSSESSION; rather, other kinds of possession may also give rise to OBLIGATION or other kinds of deontic modality. The following example involves B-POSSESSION: German *gehören* 'belong to' > auxiliary marking deontic modality in certain cases when involving participial main verbs. Ex.

German

- (a) *Das Buch gehört mir.*
 the book belongs to:me
 'The book belongs to me.'
- (b) *Er gehört eingesperrt.*
 he belongs locked:up
 'He should be/ought to be locked up.'

H-POSSESSIVE⁵⁸ > (4) PERFECT

This is a much-discussed channel of grammaticalization, mostly confined to European languages, whereby a periphrastic construction ['have' + main verb in the past participle] gives rise to a resultative/perfect construction (see, e.g., Vincent 1982; Heine 1997a; Klausenburger 2000). Furthermore, in Cantonese the item *YAU* 'to have' has given rise to an aspectual marker of perfectivity (Alain Peyraube, personal communication). PERFECT may further develop into either PERFECTIVE or PAST (see Bybee et al. 1994).

'Progressive' see CONTINUOUS

PROPERTY ('property', 'possession') > A-POSSESSIVE

Pipil *-pal* 'possession', relational noun > *pal*, preposition marking attributive possession. Ex.

Pipil (Harris and Campbell 1995: 126–7)

- (a) *nu-pal*
 (my-possession)

⁵⁷ In the present tense, *ha* is optionally deleted, so that *fo* is the only exponent of modality (Stolz 1987b: 175).

⁵⁸ This term stands for predicative possession of the *have*-type (e.g., *I have a dog*); see Heine 1997a.

- (b) *tik* *nu-ma:taw* *ohombrón* *plastas* *pal* *turuh*
 in my-net big cowpies of cow
wi:ts.
 come
 'What came in my bag were big plasters of cow.'

Kxoe *di* 'property', noun > marker of attributive possession (Köhler 1981a).
 Maltese *ta'* 'possession', 'property', noun > marker of a new pattern of attributive possession (Koptjevskaja-Tamm 1996). Ex.

Maltese (Haspelmath 1994: 21–2)

- il- ktieb* *ta'* (< *mataaʕ*) - *t- tabib*
 the-book of (< possession) - the-doctor
 'the doctor's book'

(French *part* 'part' >) Haitian CF *pa* 'part', 'portion', 'property' > genitive particle, denoting permanent possession. Ex.

Haitian CF (Sylvain 1936: 69)

- (a) *pa* *papa-m*
 (property father-my)
 'property of my father'
 (b) *Lažã* *pa-u?*
 (money of-you)
 'your money?'

Arabic *bita:f* 'property' > Nubi CA *ta*, genitive marker linking possessee and possessor (Boretzky 1988: 55). Ex.

Nubi CA (Heine 1982b: 31)

- kurá* *ta* *kalamóyo*
 leg of goat
 'the goat's leg'

We are dealing with another instance of a more general process whereby relational nouns (including nouns for body parts), on account of some salient semantic property, give rise to relational grammatical markers; compare **BOTTOM; PLACE; SIDE; TOP**.

PURPOSE > (1) CAUSE

To'aba'ita *uri*, allative, purpose preposition > reason complementizer (Lichtenberk 1991b: 44, 67). Twi *se*, purpose clause marker > cause clause marker (Lord 1989: 270ff.). Ex.

Twi (Lord 1989: 271, 284)

- (a) *memaa* *no* *sika* *se* *mfa*
 1:SG:gave him money PURP he:IMP:take

- | | | | | | |
|-----|--|--|------------|--|---------------|
| | <i>nkɔto</i> | | <i>bi.</i> | | |
| | IMPERF:go:buy | | some | | |
| | 'I gave him money to go and buy some.' | | | | |
| (b) | <i>oguanee</i> | | <i>ɛ</i> | | <i>osuro.</i> |
| | he:ran:away | | CAU | | he:was:afraid |
| | 'He ran away because he was afraid.' | | | | |

Purpose and cause are not infrequently part of one and the same polysemy set. On the basis of the available data (see Heine et al. 1991), we argue that the former precede the latter in time; so far, however, there is no conclusive historical evidence to support this hypothesis.

PURPOSE > (2) INFINITIVE

German *zu*, (allative >) purpose preposition > infinitive marker. English *to*, (allative >) purpose preposition > infinitive marker (Haspelmath 1989). Baka *na*, (benefactive preposition >) purpose preposition > infinitive marker. Ex.

Baka (Christa Kilian-Hatz, personal communication)

| | | | | | | |
|-------------------------------|----------|-----------|-----------|------------|------------|------------|
| <i>ma</i> | <i>à</i> | <i>ye</i> | <i>na</i> | <i>sià</i> | <i>gba</i> | <i>kè.</i> |
| 1:SG | ASP | want | INF | see | village | DEM |
| 'I want to see this village.' | | | | | | |

Easter Island *mo*, purpose preposition > infinitive marker. Ex.

Easter Island (Chapin 1978: 162–3)

- | | | | | | | | |
|-----|---|---------------|-------------|-----------|---------------|--------------|-----------|
| (a) | <i>He</i> | <i>patu</i> | <i>mai</i> | <i>i</i> | <i>te</i> | <i>puaka</i> | <i>mo</i> |
| | PAST | corral | here | ACC | the | cattle | INF |
| | <i>ma'u</i> | <i>kiruga</i> | <i>ki</i> | <i>te</i> | <i>miro.</i> | | |
| | carry | into | to | the | boat | | |
| | '(They) corralled the cattle in order to carry (them) onto the boat.' | | | | | | |
| (b) | <i>Hoki</i> | <i>e</i> | <i>haga</i> | <i>ro</i> | <i>mo</i> | <i>oho</i> | <i>ki</i> |
| | Q | NONPAST | want | RO | INF | go | to |
| | <i>te</i> | <i>aga</i> | <i>o</i> | <i>te</i> | <i>tenito</i> | <i>iuta?</i> | |
| | the | work | of | the | Chinese | inland | |
| | 'Do (you) want to go to work for the Chinese man inland?' | | | | | | |

Seychelles CF *pur* 'for', 'in order to', 'so that', purpose marker > marker having infinitive-like functions, for example, to present subject complements. Ex.

Seychelles CF (Corne 1977: 141–2)

- | | | | | | | | |
|-----|---|----------------|-----------|-------------|------------|--------------|------------|
| (a) | <i>mô</i> | <i>ti</i> | <i>pe</i> | <i>sâte</i> | <i>pur</i> | <i>(mua)</i> | <i>fer</i> |
| | (1:SG | PAST | PROG | sing | PURP | 1:SG | make |
| | <i>u</i> | <i>plezir.</i> | | | | | |
| | 2:SG | pleasure) | | | | | |
| | 'I was singing in order to please you.' | | | | | | |

- (b) *sa* *i* *fer* *li* *boku* *plezir* *pur*
 (that it make 3:SG much pleasure PURP
sâte.
 sing)
 'It pleases him a lot to sing.'

Perhaps related to this grammaticalization there is the following: purpose markers have given rise to complementizers in Atlantic English creoles (*fə, fi, fu*) and Romance creoles (*pu, pa*). Ex.

Jamaican CE (Mufwene 1996)

Jan trai fi kraas di riba.
 'John tried to cross the river.'

Haitian CF (Mufwene 1996)

li *difisil* *pu* *m* *fè* *sa.*
 it difficult COMP I do this
 'It's difficult for me to do this.'

For a detailed discussion of this process, see Haspelmath 1989.

PUT > COMPLETIVE

Imonda *pada* 'put' > 'finished', periphrastic terminative aspect marker. Ex.

Imonda (Seiler 1985: 104)

- (a) *kë-* *l* *tad-* *pada-* *hape.*
 bone- NOM CLASS- put- come:back
 'He put the bones there and came back.'
- (b) *ainam* *uai- fuhō-* *pada-* *u!*
 quickly ACC-go up-finish-IMP
 'Be quickly finished with your climb!'

Yagaria *to-* and *bolo-* 'put' > *-to-/-te-* and *bolo*, completive marker. Ex.

Yagaria (Renck 1975: 94)

iyalamu' *hu- bolo-d-* *i-* *e*
 shelf make-put- PAST-3:SG-IND
 'He built a shelf completely.'

Lhasa *ça?* 'put' > perfect marker carrying the sense 'do with deleterious effect' (Lord 1989: 369–70). Compare also Burmese *thà* 'put' > resultative/stative auxiliary (Park 1992: 16, 1994: 78).

This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare **BEGIN; COME FROM; COME TO; DO; FINISH; GO TO; KEEP; LEAVE; REMAIN.**

Q

S-QUESTION > CONDITIONAL

Hopper and Traugott (1993: 179) observe that one of the sources of conditional connectives consists of interrogatives. Hua *-ve* interrogative, topic status 'if' (Hopper and Traugott 1993: 179). Russian *est' li* 'is it?' > *esli* 'if' (Martin Haspelmath, personal communication). The relevance of this path of grammaticalization is suggested, for example, by the situation in German, where the verb-initial syntax of polar questions (see (a)) appears to have been extended to conditional protasis clauses (see (b)) – a situation that has existed since Old High German times (Harris and Campbell 1995: 296).

German

- (a) *Glaubt er er versteht mich?*
believes he he understands me
'Does he think he understands me?'
- (b) *Glaubt er er versteht mich,*
believes he he understands me
dann irrt er.
then errs he
'If he thinks he understands me then he is wrong.'

Subject-verb inversion also marks conditional clauses occasionally in English.
Ex.

English (Harris and Campbell 1995: 296)

Were I the organizer, I would have done things differently.

Note also that in American Sign Language, one way of expressing a conditional is to use the marker of yes-no questions (Harris and Campbell 1995: 297f.).

For more details, see Haiman 1978, 1985b and Traugott 1985b. Questions provide a not uncommon structural template to develop noninterrogative grammatical markers; see, for example, W-QUESTION. See also COPULA > CONDITIONAL.

W-QUESTION > (1) COMPLEMENTIZER

Harris and Campbell (1995: 298) note that question words or forms derived from them mark some kinds of adverbial clauses and verb complements. They give Georgian *ray-ta-mca* 'that' as an example, which is derived from a question word, *ray* 'what?'

Georgian (Harris and Campbell 1995: 298)

- | | | | | | |
|-----------|------------|--------------|-----------------|-------------|-------------|
| <i>da</i> | <i>ara</i> | <i>unda,</i> | <i>raytamca</i> | <i>icna</i> | <i>vin.</i> |
| and | not | he:want | that | he:know | someone |
- 'And he didn't want that anyone know.'

In fact, a number of languages appear to exist where question words like ‘who?’, ‘what?’, and so on are used to introduce complement clauses; for example, German *was* ‘what?’. Ex.

German

- (a) *Was* *will* *er?*
 what want he
 ‘What does he want?’
- (b) *Ich* *weiss* *nicht,* *was* *er* *will.*
 I know not what he wants
 ‘I don’t know what he wants.’

Questions provide a not uncommon structural template to develop noninterrogative grammatical markers; see also S-QUESTION.

W-QUESTION > (2) INDEFINITE PRONOUN

Yindjibarndi *ngana* ‘who?’, interrogative pronoun > ‘someone’, ‘anyone’, indefinite pronoun (Wordick 1982: 76). Slave *meni* ‘who?’ > indefinite pronoun. Ex.

Slave (Rice 1989: 1326)

| | | | | |
|--------------------|---------------|--------------------|-------------------|-----------|
| <i>meni</i> | <i>duyíle</i> | <i>ʔeghálayeda</i> | <i>yi</i> | <i>ke</i> |
| who | can | 3:work | COMP: | PL |
| <i>rágots’eyee</i> | <i>dahk’é</i> | <i>gotsé</i> | <i>gokeduhwi.</i> | |
| UNSPECIFIED:play | place | area:to | 3:PL:OPT:go | |

‘Anyone who wants to work should go to the playground.’

Kiowa *hôn-dé* ‘what?’ > *hôn-dé* ‘something’ (indefinite). Kiowa *há.-cò* ‘how?’ > ‘in some manner’ (indefinite) (Watkins 1984: 183–4). Acoma Keresan *háu* ‘who?’ > ‘some’ (indefinite). Acoma *cíi* ‘what?’ > ‘some’ (indefinite). Acoma *háca* ‘how much?’ > ‘some’ (indefinite) (Maring 1967: 48). Plains Cree *kíkway* ‘what’ > ‘something’, ‘a thing’, ‘an entity’, indefinite pronoun (Wolfart 1973: 35–6). Classical Greek *tís* ‘who?’ > *tís* ‘someone’ (Haspelmath 1997a: 170). Newari *su* ‘who?’ > *su* ‘nobody’ (with verbal negation); *chu* ‘what?’ > *chu* ‘nothing’ (with verbal negation) (Haspelmath 1997a: 170). Khmer *qwəy* ‘what?’ > *qwəy* ‘something’, *naa* ‘where?’ > *naa* ‘somewhere’ (Haspelmath 1997a: 170). Mandarin Chinese *shéi* ‘who?’ > *shéi* ‘someone’; *shénme* ‘what?’ > *shénme* ‘something’ (Haspelmath 1997a: 170). Ex.

Chinese (Haspelmath 1997a: 171)

- (a) *Tā* *bǎ* *shénme* *shū* *diū* *le?*
 she ACC what book throw PFV
 ‘What books did she throw away?’
- (b) *Tā* *bǎ* *shénme* *shū* *diū* *le.*
 she ACC what book throw PFV
 ‘She threw away a certain book.’

For details about the formal identity between interrogatives and indefinite pronouns, see Haspelmath 1997a: 170–9. A problem associated with some of these examples is that they involve more complex source forms, and it does not always become entirely clear what exactly the contribution of the question marker is in the grammaticalization to an indefinite pronoun. Nevertheless, question markers provide a not uncommon structural template to develop noninterrogative grammatical markers; see also S-QUESTION.

W-QUESTION > (3) RELATIVE

Harris and Campbell (1995: 298) observe that “Q-words or forms derived from Q-words function as relative pronouns in many languages.” Baka *là* ‘who?’, ‘which?’, interrogative pronoun > ‘s/he who’, relative pronoun. Ex.

Baka (Christa Kilian-Hatz, personal communication)

- (a) *ʔé b̃à d̃ò là? gba a mò là?*
 3:SG ASP come who village POSS 2:SG:POSS which
 ‘Who is coming?’ ‘Which is your village?’
- (b) *là- o wó b̃à lu a kà?*
 s/he:who 3:PL 3:PL ASP fight LOC where
 ‘Where are those who fight/quarrel with each other?’

Pirahã *go* ‘what’ > relative marker. Ex.

Pirahã (Everett 1986: 276)

| | | | | | |
|----------------|-----------------|------------|-----------------------|-------------|------------|
| <i>ti</i> | <i>baósaápi</i> | <i>og-</i> | <i>abagai</i> | | |
| 1 | hammock | want- | FRUSTRATED:INITIATIVE | | |
| <i>gíxai</i> | <i>go-</i> | <i>ó</i> | <i>baósaápi</i> | <i>big-</i> | |
| 2 | INTER- | OBL | hammock | show- | |
| <i>áo-</i> | <i>b-</i> | <i>í-</i> | <i>i</i> | | <i>xai</i> |
| TELIC- | PERF- | PROXIMATE- | COMPLETE:CERTAINTY | | be(?) |
| <i>sigíai.</i> | | | | | |
| same | | | | | |

‘I want the same hammock that you just showed me.’

English *who?*, *which?*, interrogative words > relative clause markers. French *qui?*, *que?*, interrogative pronouns > relative clause markers. Albanian *kush* ‘who?’ > ‘who’, relative clause marker (Buchholz et al. 1993: 265). German *welch-* ‘which?’, *was* ‘what?’, and so on, interrogative words > markers introducing relative clauses.

See Downing 1978 and Traugott 1980: 48. While the majority of examples of this pathway stem from European languages, there are also a few examples that suggest that we are not necessarily dealing with an areally defined grammaticalization. Note that question markers provide a not uncommon structural template to develop noninterrogative grammatical markers; see also S-QUESTION.

R

‘Reach’ see ARRIVE

‘Receive’ see GET

REFLEXIVE > (1) ANTICAUSATIVE

French *se*, third person reflexive marker > anticausative marker. Ex.

French (Haspelmath forthc.)

- (a) *Judas s' est tué.*
 Judas REFL is killed
 ‘Judas killed himself.’
- (b) *La porte s' est ouverte.*
 the:F door REFL is opened:F
 ‘The door opened.’

German *sich*, third person reflexive marker > anticausative marker; for example, *öffnen* ‘open (TR)’, *sich öffnen* ‘open (INTR)’ (Haspelmath 1990: 45). Spanish *se*: for example, *fundir* ‘melt’ (TR), *fundirse* ‘melt’ (INTR) (anonymous reader). Mordvinian (*prä* ‘head’ >) reflexive noun > anticausative marker. Ex.

Mordvinian (Geniušiene 1987: 303ff.; quoted from Haspelmath 1990: 44)

- (a) *läcems prä*
 (shoot head)
 ‘shoot oneself’
- (b) *kepsems prä*
 (raise head)
 ‘rise’

Aranda *-lhe*, reflexive marker, suffix > *-lhe*, intransitivizer, suffix (Wilkins 1989: 256–7). See Faltz [1977] 1985; Lehmann 1982; Haspelmath 1990, forthc.; Kemmer 1993 for more details. Under ANTICAUSATIVE we are tentatively summarizing a number of different functions that reflexive markers may assume (see Geniušiene 1987 for a more detailed typology).

REFLEXIVE > (2) MIDDLE⁵⁹

Oneida *-atat-*, reflexive marker > *-at/-an/-al/-atΛ/-a-*, middle marker (Lounsbury 1953: 72–4). South !Xun *’ee*, reflexive particle > middle marker. Ex.

South !Xun (Köhler 1981b)

- | | | | |
|-----------|--------------|-----------|-------------|
| <i>mi</i> | <i>n!àrò</i> | <i>mi</i> | <i>’ee.</i> |
| 1:SG | teach | 1:SG | REFL |
- ‘I am learning.’ (lit.: ‘I am teaching myself’)

⁵⁹ The notion “middle” is semantically complex, and it remains unclear whether we are really dealing with a distinct grammatical function.

Latin *sē*, reflexive marker > Surselvan *se-*, middle voice marker, verbal prefix (Kemmer 1993: 11).

This is a well-documented grammaticalization process (see Kemmer 1993 for a comprehensive treatment of it); still, it is not without problems, especially since “middle” does not appear to be a clearly definable grammatical function. Conceivably, most instances of this process can be described more profitably as being part of the (>) ANTICAUSATIVE > PASSIVE process.

REFLEXIVE > (3) PASSIVE

North !Xun /'é, reflexive particle > passive marker. Ex.

North !Xun (Bernd Heine, field notes)

| | | | | | |
|-------------|-----|-----------|-------------|-----------|------|
| <i>màlí</i> | /óá | <i>ke</i> | <i>tc'á</i> | <i>yà</i> | /'é. |
| money | NEG | PAST | steal | its | self |

‘The money was not stolen.’

Russian *-sja* (-s' after vowels), reflexive suffix > passive marker in the imperfective aspect (Haspelmath 1990: 43). Danish *-s*, reflexive suffix > passive marker. Ex.

Danish (Haspelmath 1990: 43)

- (a) *jeg* *elske-* *r.*
 (1:SG love- PRES)
 ‘I love.’
- (b) *jeg* *elske-* *s.*
 (1:SG love- PASS)
 ‘I am loved.’

Teso *-o/-a*, reflexive marker, singular, and first person plural, and *-os/-as*, second and third person plural > passive marker. Ex.

Teso (Hilders and Lawrance 1956: 52f.)

- (a) *e-* *lemar-* *os.*
 (3:PL-take:out-REFL:3:PL)
 ‘They take themselves out.’
- (b) *a-* *ɲaar- os* *a-konye-kec.*
 (3:PL-open-PASS:3:PL F-eyes- POSS:3:PL)
 ‘The eyes were opened.’

See Haspelmath 1990: 42–6 for a discussion of this process. Passive markers may further develop into impersonal passives; see Geniušienė 1987; Haspelmath 1990: 42ff.; Heine 2000b; Schladt 2000; König and Siemund 2000: 58 for more details. There is reason to assume that the evolution from reflexive to passive markers obligatorily involves an intermediate anticausative stage; hence, we may be dealing with a more general pathway: REFLEXIVE > ANTICAUSATIVE > PASSIVE; see ANTICAUSATIVE > PASSIVE.

REFLEXIVE > (4) RECIPROCAL

French *se*, third person reflexive marker > marker of naturally reciprocal activities. Ex.

French (Haspelmath forthc.)

- (a) *Judas s' est tué.*
 Judas REFL is killed
 'Judas killed himself.'
- (b) *Elisabeth et Marie se sont rencontrées.*
 Elisabeth and Mary REFL are met:F:PL
 'Elizabeth and Mary met.'

Russian *-sja/s'*, reflexive marker > marker of natural reciprocity. Ex.

Russian (Haspelmath forthc.)

- Elizaveta i Marija vstretili- s'*
 (Elizabeth and Mary met- REFL)
 'Elizabeth and Mary met.'

Reciprocal meanings may arise when reflexive markers refer to plural referents. Reciprocity is an optional reading of reflexive markers in many languages. Ex.

Yoruba (Awoyale 1986: 11; Heine 2000b: 13)

- Won rí ara won*
 they saw body their
 'They saw themselves.' / 'They saw each other.'

In other languages again reflexive markers appear to have developed into fully conventionalized reciprocal markers. See Haspelmath forthc. and Heine 2000b: 12ff.

RELATIVE > COMPLEMENTIZER

Chalcatongo Mixtec *xa=*, relative pronoun > complementizer (Macaulay 1996: 153, 160). Thai *thii*, relative marker > complementizer (Bisang 1998a: 780). Early Biblical Hebrew *she/asher*, relative pronoun > complementizer. Ex.

Early Biblical Hebrew (Cristofaro 1998: 64–5)

- ?al tir?u- ni she- ?ani shaxoret.*
 NEG see:IMPV:3:SG:M- me REL- I dark:SG:F
 'Don't see it that I am dark-skinned.'

For a discussion of how relative clauses can be reinterpreted as complement clauses in a number of genetically unrelated languages, see Lehmann 1995b: 1213–14. More research is required on the structure and the genetic and areal distribution of this pathway.

REMAIN > (1) DURATIVE

Vietnamese *còn* 'remain', 'still exist', 'be still alive' > continuative adverbial marker 'still' (Bisang 1998b: 652). German *bleiben* 'remain', verb > auxiliary used to express, for example, continued activity. Ex.

German

| | | | | |
|-----------|------------|-------------|---------------|-------------------|
| <i>Er</i> | <i>ist</i> | <i>beim</i> | <i>Reiten</i> | <i>geblieben.</i> |
| he | is | at | riding | remain:PARTCP |

'He stuck to horseback riding.'

Portuguese *ficar* 'remain' > *ficar (a fazer)*, durative auxiliary. Ex.

Portuguese (Schemann and Schemann-Dias 1983: 27–8)

| | | | | | |
|-------------|-------------|----------|--------------|----------|---------------|
| <i>fico</i> | <i>toda</i> | <i>a</i> | <i>noite</i> | <i>a</i> | <i>pensar</i> |
| remain:1:SG | whole | the | night | to | think |

que não durmo.

that not sleep:1:SG

'The whole night I keep thinking so that I can't sleep.'

Turkish *dur-* 'stand', 'wait', 'remain', 'endure' forms a durative when attached to the gerund of a verb; for example, *bak-* 'look', *bakadur-* 'keep on looking' (anonymous reader; Hony 1957: 90, Lewis [1967] 1985: 191).

Kxoe *éi* 'remain', verb > *-éi* durative/intensive derivative suffix (Köhler 1981a: 503). Ex.

Kxoe (Köhler 1981a: 503)

| | | | | |
|----------------|------------|------------|------------|------------|
| <i>//oàβà-</i> | <i>ná-</i> | <i>éi-</i> | <i>yé-</i> | <i>tè.</i> |
| (cover- | II- | DUR- | I- | PRES) |

'(She) covers (him) solidly.'

Note also that in North Indian languages such as Hindi, Urdu, and Punjabi, the progressive aspect is expressed with the perfect participle of the verb 'stay', 'remain' (Comrie 1976: 102; Lord 1993: 216–17). This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare BEGIN; COME FROM; COME TO; DO; FINISH; GO TO; KEEP; LEAVE; PUT.

REMAIN ('to remain', 'to stay') > (2) HABITUAL

Ewe *nɔ̃* 'remain', 'stay', action verb > *-na* (*-a* after transitive verbs), verbal habitual suffix, "Dahome" dialect of Ewe *-nɔ̃-*, verbal habitual prefix (Westermann 1907: 139–40). Ex.

Ewe

- (a) *me- nɔ̃* *afi.*
1:SG-remain here
'I remained here.'
- (b) *me- yí- na.* (Heine and Reh 1984: 19)
1:SG-go-HAB
'I (habitually) go.'

Sango *ngbâ* 'remain', verb > continuous marker (Thornell 1997: 122). This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect

functions; compare BEGIN; COME FROM; COME TO; DO; FINISH; GO TO; KEEP; LEAVE; PUT.

RESEMBLE ('to resemble', 'to be like') > (1) COMPARATIVE

Late Archaic and Han Chinese *bi* 'to compare with', 'to be like', 'to imitate', verb > Late Medieval Chinese (eighth–ninth centuries A.D.) *bi* 'more than', comparative marker when serving as the first verb (V₁) followed by a predicative adjective as V₂ (Li and Thompson 1980; Peyraube 1988: 627–32). Ex.

*Old Chinese (Mengzi Gongsun Chou shang; quoted from Sun 1996: 39)*⁶⁰

| | | | | | |
|-------------------------------------|-----------|-------------|-----------|-----------|-----------|
| (a) <i>er</i> | <i>he</i> | <i>ceng</i> | <i>bi</i> | <i>yu</i> | <i>yu</i> |
| 2:SG | how | STRESS | compare | 1:SG | YU |
| <i>shi?</i> | | | | | |
| 3:SG | | | | | |
| 'How (dare) you compare me to him?' | | | | | |

Modern Mandarin Chinese (Sun 1996: 38)

| | | | |
|--------------------------------------|-----------|---------------|-------------------|
| (b) <i>ta</i> | <i>bi</i> | <i>meimei</i> | <i>piaoliang.</i> |
| 3:SG | COMPAR | sister | pretty |
| 'She is prettier than (her) sister.' | | | |

The data available suggest that the development of Chinese *BI* (*bi*) may have proceeded in three main stages. First, in Old Chinese, its primary meaning appears to have been that of a verb, 'to compare'. Second, it later acquired features of a simile verb, 'to be like' and in Middle Chinese of a simile preposition, 'like'. Third, it eventually assumed functions of a comparative marker (cf. Sun 1996: 38f.). Early Mandarin *ru* 'to resemble' > comparative marker. Ex.

Early Mandarin Chinese (Yuan kan zaju sanshi zhong Yu Shang Wang; quoted from Sun 1996: 40)

| | | | | |
|--|-----------|----------------|-----------|-----------|
| (a) <i>xiong-jiujiu</i> | <i>de</i> | <i>gongren</i> | <i>ru</i> | <i>hu</i> |
| gallantly | PART | policemen | resemble | tiger |
| <i>lang.</i> | | | | |
| wolf | | | | |
| 'Arrogant policemen are like tigers and wolves.' | | | | |

⁶⁰ Since with the grammaticalization of A to B, A does not necessarily disappear, it comes as no surprise that *BI* has retained uses of a lexical verb ('to compete') in Modern Mandarin Chinese (a), side by side with its use as a comparative marker (b) (Sun 1996: 41–2).

| | | | | | |
|---|----------------|------------|-----------|-----------|-------------------|
| (a) <i>wo</i> | <i>jintian</i> | <i>gen</i> | <i>ni</i> | <i>bi</i> | <i>ping pong.</i> |
| I | today | with | 2:SG | compete | ping-pong |
| 'I will play ping pong with you today.' | | | | | |
| (b) <i>wo</i> | <i>bi</i> | <i>ni</i> | <i>da</i> | <i>de</i> | <i>hao.</i> |
| I | BI | 2:SG | hit | DE | good |
| 'I can play better than you (can).' | | | | | |

Early Mandarin Chinese (Yuan kan zaju sanshi zhong Yu Shang Wang, Mo he luo; quoted from Sun 1996: 40)

| | | | | | |
|----------------|-----------|------------|--------------------|----------------|--------------|
| (b) <i>chi</i> | <i>le</i> | <i>xie</i> | <i>popei</i> | <i>chunnuo</i> | <i>sheng</i> |
| eat | ASP | some | fermented | spirit | better |
| <i>ru</i> | <i>yu</i> | <i>xie</i> | <i>qiongjiang.</i> | | |
| COMPAR | jade | liquid | wine | | |

'(I) took some fermented wine, better than the best of wine.'

Chinese XIANG 'to resemble', 'to be like' > XIANG, comparative marker (Alain Peyraube, personal communication). German *wie* 'like' > Colloquial German 'like', '(more) than', comparative marker. Ex.

German

| | | | | |
|-----------------|-----------------|------------|------------|---------------|
| (a) <i>Inge</i> | <i>schwimmt</i> | <i>wie</i> | <i>ein</i> | <i>Fisch.</i> |
| Inge | swims | like | a | fish |

'Inge swims like a fish.'

Colloquial German

| | | | | |
|-----------------|-----------------|------------------|------------|-------------|
| (b) <i>Inge</i> | <i>schwimmt</i> | <i>schneller</i> | <i>wie</i> | <i>ich.</i> |
| Inge | swims | faster | like | I |

'Inge swims faster than I.'

More examples are required to substantiate this grammaticalization. It would seem, however, that this is an instance of a process whereby a verb, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; see also COME FROM; COME TO; CROSS; EXCEED; PASS. For more pathways of grammaticalization having RESEMBLE-verbs as a source, see Lord 1993.

RESEMBLE ('to resemble', 'to be like') >

(2) COMPLEMENTIZER

Twi *se* 'resemble', 'be like', 'be equal', verb > 'that', complementizer. Ex.

Twi (Lord 1993: 160)

| | | | | | | |
|-----------------|-----------|--------------|--|--|--|--|
| (a) <i>kofi</i> | <i>se</i> | <i>amma.</i> | | | | |
| Kofi | be:like | Amma | | | | |

'Kofi resembles Amma.'

| | | | | | | |
|---------------|------------|------------|-----------|-------------|------------|---------------|
| (b) <i>na</i> | <i>ama</i> | <i>nim</i> | <i>se</i> | <i>kofi</i> | <i>yεε</i> | <i>adwuma</i> |
| PAST | Ama | know | that | Kofi | did | work |

no.
the

'Ama knew that Kofi had done the work.'

The situation in Twi has given rise to some confusion in that there are two phonologically similar verbs, *se* 'say' and *se* 'be like', that have developed into complementizers (see Lord 1993: 151ff.; see also SAY > COMPLEMENTIZER). See

also Kode (Baule dialect) *kε* 'like', 'that', complementizer after verbs of speaking and mental action. Ex.

Kode (Lord 1993: 201)

| | | | | | |
|----------|-----------|-----------|----------|-----------|-----------|
| <i>n</i> | <i>se</i> | <i>kε</i> | <i>a</i> | <i>wā</i> | <i>ti</i> |
| I | say | that | you | husband | COP |

wonī.
python
'I say that your husband is a python.'

Idoma *bē* 'resemble' > complementizer after verbs of thinking, seeing, knowing, and hearing. Ex.

Idoma (Lord 1989: 330, 1993: 200)

| | | | | | |
|----------|-----------|-------------|----------|-----------|------------|
| <i>ɲ</i> | <i>je</i> | <i>b-</i> | <i>o</i> | <i>ge</i> | <i>wɑ.</i> |
| 1:SG | know | resemble-he | | FUT | come |

'I know that he'll come.'

Buang (*na*)*be* 'thus', 'in this manner', 'approximately', 'like', adverb > complementizer (Sankoff 1979: 37). Tok Pisin PE *olsem* 'thus', 'like' > 'that', complementizer. Ex.

Tok Pisin PE (Woolford 1979: 116, 118)

- (a) *Em* *i* *kamap* *yangpela* *boi* *olsem*
he i grow young boy like
James.
James
'He grew up to be a young boy like James (i.e., James' size).'
- (b) *Na* *yupela* *i* *no* *save* *olsem*
and you:PL i NEG know that
em *i* *matmat?*
it i cemetery
'And you did not know that it was a cemetery?'

This is an instance of a pathway whereby process verbs, on account of some salient semantic property, give rise to grammatical markers used for clause combining; compare *SAY*. For more pathways of grammaticalization having RESEMBLE-verbs as a source, see Lord 1993.

RESEMBLE ('to resemble', 'to be like') > (3) SIMILE

Twi *sε* 'resemble', 'be like', 'be alike', 'be equal' > 'like', 'as' (Lord 1989: 256ff.). Ex.

Twi (Lord 1989: 257–9)

- (a) *Kofi* *sε* *Amma.*
Kofi be:like Amma
'Kofi resembles Amma.'

- (b) *Èbere se mogya.*
 it:be:red like blood.
 'It is as red as blood.'

Tamil *poola* 'be similar with', stative verb > 'like', 'as', postposition. Ex.

Tamil (T. Lehmann 1989: 131)

kumaar panri-y-ai-p poola katt-in- aan.
 Kumar pig- ACC like cry- PAST-3:M:SG
 'Kumar cried like a pig.'

This appears to be an instance of a process whereby a verb, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; see also COME FROM; COME TO; CROSS; EXCEED; FALL; PASS. For more pathways of grammaticalization having RESEMBLE-verbs as a source, see Lord 1993.

RETURN ('to return', 'to go back (to)') > ITERATIVE

Sanuma *kō* 'return' > repetitive marker. Ex.

Sanuma (Borgman 1990: 180–1)

ĩ hamō sa pili- a- mö ku-
 REL LOC 1:SG live- DUR- PURP be-
a akō- ki pia salo.
 DUR return- FOC intend RESULT
 'I intend to live in that place again.'

Sotho *-bōèla* 'return (applicative form)' > repetitive auxiliary. Ex.

Sotho (Doke and Mofokeng [1957] 1985: 247)

- (a) *Nka- bōèla mōtsē- ng.*
 (1:SG:POT-return village-LOC)
 'I can return to the village.'
- (b) *Nka- bōèla ka- bua.*
 (1:SG:POT-return 1:SG:SUB-speak)
 'I can speak again.'

Zulu *-buya* 'return (= movement from point A to point B and back to point A)' > *-buye* 'do again', repetitive auxiliary. Ex.

Zulu (Mkhatshwa 1991: 91–2)

- (a) *U- zo- buya kusasa.*
 (2:SG-FUT-return tomorrow)
 'He will return tomorrow.'
- (b) *U- buy- e u- si- fund- e*
 (2:SG-return-SUBJUNCT 2:SG- C7- learn-SUBJUNCT)

lesi si- fundo.
 c7:DEM c7-lesson)
 'Study this lesson again.'

Kikuyu *-coka* 'return (to)', 'come', 'go back', transitive and intransitive verb > 'again', 'then', 'after that', iterative auxiliary. Ex.

Kikuyu (Benson 1964: 66)

- (a) *Nĩ- tũ- ra- coka mũ- cĩ.*
 PART-1:PL-PRES- return C3- home
 'We are going home.'
- (b) *i- ti- na- coka kũ- rĩa*
 CIO-NEG-PAST- return INF-eat
 'They (the cattle) did not feed again.'

Moré *lébé* 'return', intransitive verb > *lé* 'again', repetitive auxiliary, 'no longer' (when negated) (Alexandre 1953b: 222). Sango *kĩri* 'return', verb > 'repeat', iterative marker. Ex.

Sango (Thornell 1997: 123)

âla k̄iri âla mã kp̄ngb̄a t̄n̄e.
 3:PL return 3:PL hear hard word
 'They listen to the severe message again.'

Burmese *pran* 'return' > repetitive auxiliary (Park 1992: 16). Portuguese *tornar/voltar* 'return', verb > *tornar/voltar a* + INF 'to do again', repetitive auxiliary (Stolz 1985: 144). Sardinian *torrare* (< Latin *tornare*) 'return', 'give back', verb > *tòrra* 'again', 'afresh'. Ex.

Sardinian (Wagner 1962: 498–9)

- (a) *torrate ... ad domos uostras!*
 (return:IMP:PL ... to houses your:PL)
 'Return (ye) ... home!'
- (b) *e il presentat torra cuḍḍu signore.*
 (and he introduce again DEM man)
 'And he introduces that gentleman again.'

Fa d'Ambu CP *vilame* 'return', motion verb > (a) *vilame*, repetitive auxiliary; (b) *-vla*, verbal iterative suffix. Ex.

Fa d'Ambu CP (Post 1992: 160)

andyi se e lantá- vla. . .
 one:day that 3:SG get:up-return
 'One day he got up again. . .'

Nubi CA *áarija (fógo)* 'return (be there)' > iterative marker (simple repetition) (Boretzky 1988: 64).

S

SAME > INTENSIVE-REFL

German *selb-* ‘same’ > *selbst*, intensive reflexive (emphatic reflexive). Ex.

German

| | | | | | |
|------------|--------------|---------------|------------|-----------|---------------|
| <i>Der</i> | <i>König</i> | <i>selbst</i> | <i>hat</i> | <i>es</i> | <i>getan.</i> |
| the | king | himself | has | it | done |

‘The king himself did it.’

French *même* ‘same’ > intensive reflexive, Spanish *mismo* ‘same’ > intensive reflexive. Moravcsik (1972: 273) mentions Syrian Arabic *nafs-* and *zāt-*, Ancient Greek *autos*, and Lithuanian *pàts* as further examples where the intensive reflexive (intensifier in her terminology) is “homonymous” in part or in its totality with the word for ‘same’ (cf. König and Siemund 2000). More research is required to establish that the directionality proposed here is correct.

SAY > (1) CAUSE

Baka *pe* ‘say’, verb > (purpose clause subordinator >) cause clause subordinator. Ex.

Baka (Christa Kilian-Hatz, personal communication)

| | | | | | | |
|-----------|----------|------------|-----------|-----------|-----------|-------------|
| <i>mo</i> | <i>à</i> | <i>mɛ̀</i> | <i>ʔè</i> | <i>kɛ</i> | <i>pe</i> | <i>nye?</i> |
| 2:SG | ASP | make | matter | DEM | CAU | what |

‘Why do you do this?’

Lezgian *luhuz*, imperfective converb of *luhun* ‘say’ (> complementizer) > ‘because’, causal conjunction. Ex.

Lezgian (Haspelmath 1993: 390)

| | | | |
|----------------|------------------|--------------|--------------|
| <i>Pul</i> | <i>kwadar-na</i> | <i>luhuz</i> | <i>buba</i> |
| money | lose- AOR | saying | father |
| <i>k'wal-</i> | <i>er-</i> | <i>aj</i> | <i>aqud-</i> |
| house- | PL- | INE | take:out- |
| <i>že- da-</i> | <i>ni?</i> | | INF |
| can-FUT- | Q | | |

‘Can we kick father out of the house because he has lost the money?’

See Saxena 1988a, 1988b; Heine et al. 1991: 158–9; Lord 1993. This appears to be an instance of a process whereby process verbs, on account of some salient semantic property, give rise to grammatical markers used for clause combining; compare RESEMBLE. See also SAY > SUBORDINATOR.

SAY > (2) COMPLEMENTIZER

Egyptian *r ǰd* ‘(in order) to say’ > ‘that’. Ex.

Egyptian (Gardiner 1957: 173f.)

| | | | |
|-------------------|-----------|----|-----|
| 'iw.'i | rh. kw'i | r | dd |
| (PART:1:SG | know:1:SG | to | say |
| hnw.f | pw. | | |
| resting:place:his | this) | | |

'I know that it is his resting place.'

Kwami gó 'say', verb > 'that', complementizer (Leger 1991: 26). Kupto ngó 'say', verb > 'that', complementizer (Leger 1992: 21). Maa -jó 'to say', verb > ajó, object clause subordinator (Heine and Claudi 1986: 99). Koranko kó 'say', verb > complementizer after mental process verbs. Ex.

Koranko (Kastenholz 1987: 265, 336)

- (a) ànu kó ñ yé: 'sìi yíri!
 3:PL say 1:SG to sit IDEO
 'They said to me: "Sit down quietly!"'
- (b) ñ yá à fɔ́ í yé kó
 1:SG TAM 3:SG say 2:SG to that
 í kána tó yà.
 2:SG TAM:NEG stay here
 'I told you that you cannot stay here.'

Vai ro 'say', 'suppose', 'think', verb > -ro, complement clause subordinator, defective verb. Ex.

Vai (Koelle [1854] 1968: 123)

| | | | | |
|----------|------|----------|----------|------|
| móa | so | mú- ro: | yá | mu |
| 1:PL:TAM | know | 1:PL-say | 2:SG:TAM | 1:PL |

díake.
 love:do
 'We know that thou lovest us.'

Baka pe 'say', verb > object clause complementizer. Ex.

Baka (Christa Kilian-Hatz, personal communication)

- (a) ma pe mɛ̀̀ bèl̀̀ kè̀̀!
 1:SG say make:IMP work DEM
 'I say: do this work!'
- (b) ma à nyi pe ?é dɔ.
 1:SG ASP know that 3:SG come
 'I know that he comes.'

Ga kè̀̀ 'say', verb > ákè̀̀, object clause subordinator (Lord 1989: 338). Gokana kɔ́ 'say', verb > marker of complements after verbs of saying, mental action, and perception ('know', 'want', 'show', 'fear', 'see', 'hear'; Lord 1989: 326). Idoma ka 'say', 'speak', verb > clause subordinator after verbs of thinking, knowing, and hearing (Lord 1989: 329). Zande yá 'to say', 'to think', verb > ya 'that',

complement clause subordinator (Canon and Gore [1931] 1952: 156). Swahili **ku-amba* 'to say' > *kwamba*, complement clause subordinator. Nyanja *kú-tí* 'to say' > *kùtì*, complementizer (Lord 1989: 338). Lingala *te* 'say', verb > object clause subordinator (van Everbroeck 1958: 82). Bemba *-tí* 'say', verb > object clause subordinator. Ex.

Bemba (Givón 1980: 365–6)

- (a) *a-* *a-* *ebele* *a-* *a-* *ti* *umanaa-*
 he- PAST- say he- PAST- say friend-
ndi *a-* *a-* *ishile.*
 my he- PAST- come
 'He said: My friend has arrived.'
- (b) *a-* *a-* *ebele* *uku-* *ti* *umanaa-* *ndi*
 he- PAST- say INF- say friend- my
a- *a-* *ishile.*
 he- PAST- come
 'He said that my friend had arrived.'

Ewe *bé* 'say', verb > object clause complementizer. Ex.

Ewe (Lord 1989: 307–8)

- (a) *me-* *bé* *me-* *wɔ* *e.*
 1:SG- say 1:SG- do it
 'I said: I did it.' / 'I said that I did it.'
- (b) *me-* *dí* *bé* *máfle* *awua*
 1:SG- want (say) 1:SG:SUBJUNCT:buy dress
d̩e- *wó.*
 some- PL
 'I want to buy some dresses.'

Efik *ke* 'say', verb > complementizer (Lord 1989: 338). Yoruba **kpé* 'say' > complementizer; *wí* 'say' > *wí-kpé* complementizer (Lord 1989: 338). Dschang *ʏè* 'say' > complementizer (Lord 1989: 338). Igbo *ká* 'say', verb > complementizer (Lord 1989: 339). Hausa *cê* 'say', verb > *cêwā*, quotative, clause subordinator (Lord 1989: 339). Nepali *bhan-* 'say' > *bhanne*, complementizer (Lord 1989: 339). Chamling *rungma* 'say' > *rungma* 'that', subordinator. Ex.

Chamling (Ebert 1991: 79–80)

- khu* *garib* *hing-* *e* *rungma* *kanga* *chaid-*
 he poor be- ? say 1:SG know-
ãi.
 1:SG?
 'I know: He is poor.' / 'I know that he is poor.'

Tamil *enru* 'say' > *ennru*, complementizer (Lord 1989: 339). Telugu *anu* 'say' > *ani*, complementizer (Lord 1989: 339). Sinhalese *kij̄la* 'say' > complementizer

(Lord 1989: 339). Bengali *bole* 'say' > complementizer (Ebert 1991: 78). Marathi *mhaṇūn* 'say' > complementizer (Ebert 1991: 78). Santali, Mundari *mente* 'say' > complementizer (Ebert 1991: 78). Sora *gamle* 'say' > complementizer (Ebert 1991: 78). Burmese *hsou* 'say' > complementizer (Lord 1989: 339). Thai *wāa* 'say' > complementizer (Lord 1989: 339). Hmong (*hais*) *tias* 'say' > complementizer (Ebert 1991: 78). Khmer *thaa* 'say' > complementizer (Ebert 1991: 78). Buru *fen(e)* 'think, say, affirm' > complementizer (with verbs expressing physical perception and mental perception). Ex.

Buru (Klamer 2000: 78)

| | | | | | |
|-----------|-------------|------------|--------------|------------|--------------|
| <i>Ya</i> | <i>tewa</i> | <i>fen</i> | <i>ringe</i> | <i>iko</i> | <i>haik.</i> |
| 1:SG | know | FEN | 3:SG | go | PFV |

'I know that he has already left.'

Avar *abun* 'say' > complementizer (Ebert 1991: 78). Turkish *diye* 'say' > complementizer (Ebert 1991: 78). Mongolian *kemen* 'say' > complementizer (Ebert 1991: 78). Lezgian *luhu-z*, quotation marker (imperfective converb of *luhun* 'say') > complementizer 'that'. Ex.

Lezgian (Haspelmath 1993: 367)

| | | | | | | |
|--------------|-----------|---------------|---------------|----------|---------------|-----------|
| <i>gada-</i> | <i>di</i> | <i>wič</i> | <i>k'wal-</i> | <i>e</i> | <i>amuq'-</i> | <i>da</i> |
| boy- | ERG | self | house- | INE | stay- | FUT |
| <i>luhu-</i> | <i>z</i> | <i>haraj-</i> | <i>zawa.</i> | | | |
| say- | IMC | shout- | IMPFV | | | |

The boy is shouting that (lit.: 'saying') he would stay at home.'

English *say* > Tok Pisin PE *se*, complementizer (Ebert 1991: 77). English *say* > Nigerian PE *say*, complementizer; for example, *I tink say beggar no get choice* (Ebert 1991: 77). Negerhollands CD *se(e)* (< Dutch *zeggen*) 'say' > object clause complementizer 'that'. Ex.

Negerhollands CD (Stolz 1986: 229)

- (a) *Ham* *a* *se,* *wa* *di* *be:?*
 (3:SG PERF say what DEM be)
 'He said: What was that?'
- (b) *Am* *no* *we:t* *se* *fo* *ko:k* *jamus. . . .*
 (3:SG NEG know that DEB cook yam)
 'He didn't know that he had to cook yam. . . .'

West African PE *sey*. Ex.

West African PE (Lord 1989: 333)

| | | | | | | |
|-----------|-------------|-------------|-------------|---------------|------------|-------------|
| <i>ól</i> | <i>pípu</i> | <i>sabi</i> | <i>sey,</i> | <i>mítíng</i> | <i>gow</i> | <i>déy.</i> |
| all | people | know | (say) | meeting | FUT | LOC |

'All the people know that there will be a meeting.'

See especially Lord 1973, 1993: 206–8; Saxena 1988a, 1988b; Ebert 1991; Frajzyngier 1995: 200; Klamer 2000. For more examples from pidgins and creoles, see Holm

1988: 185–8 and Muysken and Veenstra 1995: 290ff. This is an instance of a process whereby process verbs, on account of some salient semantic property, give rise to grammatical markers used for clause combining; compare **RESEMBLE**.

SAY > (3) CONDITIONAL

Lahu *qô?* 'say' > *qo* 'if', conditional marker. Ex.

Lahu (Matisoff 1991: 400)

| | | | | | | |
|------------|-------------|-----------|------------|-----------|-----------|-----------|
| <i>nó</i> | <i>ô-ve</i> | <i>câ</i> | <i>qo,</i> | <i>nà</i> | <i>tù</i> | <i>ve</i> |
| 2:SG | DEM | eat | if | sick | PART | PART |
| <i>yò.</i> | | | | | | |
| PART | | | | | | |

'If you eat that, you'll get sick.'

Tamang *pi sam* ('say' + 'if') 'if one says' > conditional marker (Matisoff 1991: 400; Lord 1993: 207). Idoma *ka* 'say', verb > marker introducing conditional clauses (Lord 1989: 317f.). Ga *kèé* 'say' > *ké*, conditional clause subordinator (Lord 1989: 317f.). Ex.

Ga (Lord 1989: 318)

| | | | | |
|---|----------|----------------|-----------|-------------|
| <i>máha</i> | <i>o</i> | <i>niyenti</i> | <i>ké</i> | <i>oba.</i> |
| give:1:SG:FUT | you | food | (say) | you:come |
| 'I'll give you some food if/when you come.' | | | | |

Baka *pe* 'say', verb > conditional marker. Ex.

Baka (Christa Kilian-Hatz, *personal communication*)

| | | | | | | |
|-----------|-----------|----------|------------|-----------|-----------|-------------|
| <i>pe</i> | <i>mo</i> | <i>ò</i> | <i>sia</i> | <i>lé</i> | <i>mò</i> | <i>jukó</i> |
| if | 2:SG | NAR | see | 3:SG:OBJ | 2:SG | greet |
| <i>è!</i> | | | | | | |
| 3:SG:OBJ | | | | | | |

'Give him my greetings if you see him!'

See Lord 1993 for more details. This is an instance of a pathway whereby process verbs, on account of some salient semantic property, give rise to grammatical markers used for clause combining; compare **RESEMBLE**.

SAY > (4) EVIDENTIAL

Lezgian *luhuda* 'one says (cf. *luhun* 'say')' > *-lda*, hearsay evidential marker (Haspelmath 1993: 232). English *they say* > hearsay evidential marker; for example, *They say she's coming* (Givón 1991a: 83). Taiwanese, Southern Min *kong* 'say' > evidential marker of hearsay information (Chappell forthc.). More research is required on the general process leading to the rise of evidential markers (see Willett 1988).

SAY > (5) PURPOSE

Ewe *bé* 'say', verb (>object clause subordinator) > purpose clause subordinator (Lord 1989: 306ff.). Ex.

Ewe (Lord 1989: 313)

| | | | | |
|---------------|-----------|------------------|-----------|------------|
| <i>é-dògo</i> | <i>bé</i> | <i>ye- á-</i> | <i>ɖu</i> | <i>nú.</i> |
| he-go:out | (say) | LOG-SUBJUNCT-eat | | thing |

‘He went out in order to eat.’

Gokana *kɔ* ‘say’ (> object clause subordinator) > purpose clause subordinator (Lord 1989: 325–6). Ex.

Gokana (Lord 1989: 326)

| | | | | | |
|----------------|-----------|-----------|------------|---------------|-----------|
| <i>lébàrèè</i> | <i>du</i> | <i>kɔ</i> | <i>baá</i> | <i>mən-èè</i> | <i>ɛ.</i> |
| Lebare | came | (say) | they | see- LOG | him |

‘Lebare came for them to see him.’

Baka *pe* ‘say’, verb (> object clause subordinator) > purpose clause subordinator. Ex.

Baka (Christa Kilian-Hatz, personal communication)

(a) *ma* *pe* *mɛè* *bèlà* *kè!*
 1:SG say make:IMP work DEM
 ‘I say: do this work!’

(b) *tɔ* *pe- è* *ngo* *pe* *ma* *njo!*
 give:IMP DAT-1:SG water that 1:SG drink
 ‘Give me water so that I may drink!’

Koranko *kó* ‘say’, defective intransitive verb > purpose clause subordinator. Ex.

Koranko (Kastenholz 1987: 265, 336)

| | | | | | | |
|-----------|-----------------------|--------------|-------------|---------------|-----------|----------|
| <i>á</i> | <i>dù-</i> | <i>da</i> | <i>túyɛ</i> | <i>kɔ́ndɔ</i> | <i>kó</i> | <i>à</i> |
| 3:SG | enter-TAM | | forest | POST | PURP | 3:SG |
| <i>sí</i> | <i>kɔ́lɔmɔ̀gboenu</i> | <i>ɲíní.</i> | | | | |
| TAM | fruit | search | | | | |

‘He went into the forest in order to look for fruit.’

Lingala *te* ‘say’, verb > purpose clause marker. Ex.

Lingala (van Everbroeck 1958: 82)

kangá mbwá nsinga te áboma nsósó té!
 ‘Tie the dog up so that it doesn’t kill the chicken!’

Sranan CE *taki* ‘say’ (> clause subordinator ‘that’) > purpose clause subordinator. Ex.

Sranan CE (Ebert 1991: 86)

| | | | | | | |
|--------------|------------|------------|--------------|------------|-------------|------------|
| <i>A</i> | <i>ɛni</i> | <i>Sa</i> | <i>Akuba</i> | <i>go,</i> | <i>taki</i> | <i>mek</i> |
| (he | sent | Sa | Akuba | off | that | make |
| <i>datra</i> | <i>luk</i> | <i>ɛŋ.</i> | | | | |
| doctor | look | her) | | | | |

‘He sent Sa Akuba so that the doctor should examine her.’

Negerhollands CD *se(e)* (< Dutch *zeggen*) ‘say’ > object clause complementizer (see SAY > COMPLEMENTIZER), purpose clause subordinator. Ex.

Negerhollands CD (Stolz 1986: 229)

| | | | | | |
|-----------|-----------|-----------|--------------|-----------|---------------------|
| <i>Fo</i> | <i>ma</i> | <i>se</i> | <i>pasé:</i> | <i>di</i> | <i>wurum. . . .</i> |
| (CONJ | make | that | go | DET | worm) |

'In order to get rid of the worms. . . .'

For more examples from pidgins and creoles, see Muysken and Veenstra 1995: 290ff. This is an instance of a process whereby process verbs, on account of some salient semantic property, give rise to grammatical markers used for clause combining; compare RESEMBLE. See also SAY > SUBORDINATOR.

SAY > (6) QUOTATIVE

Nama *mí* 'say', 'speak', *ti mī* (lit.: 'thus speak') > *ti(mi)*, direct quotation marker. Ex.

Nama (Krönlein 1889: 231, 309; Hagman 1977: 137)

- (a) *Mí* *re* *mati* *khum* *ñ* *dī*
 say IMP how 1:M:DU FUT make
!kei- ě.
 matter-3:C:SG
 'Tell [us] how we should do it.'
- (b) *siíke* *tì* *ʔàe-ʔúí'ao-p* *pita- p*
 (1:PL:M POSS leader- 3:SG:M Peter-3:M:SG)
tí(mi) *ra* *ʔái- hè- p*
 (QUOT PROG call-PASS-3:M:SG)
 'our leader who is called Peter'

Twi *se* 'say', verb > quotative marker (Lord 1989: 292ff.). Ex.

Twi (Lord 1989: 297)

| | | | | | |
|--------------|----------------|---------------|-----------|--------------|--------------|
| <i>Onipa</i> | <i>reba,</i> | <i>wo- n-</i> | <i>se</i> | <i>n-se:</i> | <i>bera!</i> |
| man | PROG:COME:COND | YOU-NEG-say | | NEG-say | come |

'When a man is coming, you do not say: come!'

Concerning the Kusasi (Kusal) quotative marker *ye*, see Lord 1993: 198–9. Cahuilla *-yax-* 'to be so', 'to say' + *-qal*, durative marker, *yáx-qal* 'he says' > *-yax-qal-*, quotative marker (Seiler 1977: 187). English **talk* > Saramaccan CE *taá*, quotative and clause subordinator 'that' after verbs of saying and mental action/perception (Lord 1989: 335–6). English **talk* > Sranan CE *taki*, quotative/complementizer ('that'; Lord 1989: 335). Ex.

Sranan CE (Ebert 1991: 86; Lord 1989: 335)

| | | | | | | |
|-----------|------------|------------|---------------|--------------|------------|--------------|
| <i>Ma</i> | <i>wan</i> | <i>dei</i> | <i>Anansi</i> | <i>taigi</i> | <i>hem</i> | <i>weifi</i> |
| but | one | day | Anansi | talk | his | wife |

a taki: . . .
 ? talk
 'But one day, Anansi said to his wife: . . .'

West African PE *sey* 'say' > quotative marker. Ex.

West African PE (Lord 1989: 332)

| | | | |
|-------------|------------|-------------|-----------------|
| <i>mása</i> | <i>tók</i> | <i>sey,</i> | <i>kóm- ow.</i> |
| (master | talk | (say) | come-?) |

'The master said, "Come here"'

Thai *wâa* 'say' > quotative complementizer (at the end of nonfinal clauses containing a verb of utterance or of cognition) (Matisoff 1991: 398). Khmer *thaa* 'say' > quotative complementizer (Matisoff 1991: 399). Vai *ro* 'say', 'suppose', 'think', *áro* 'he says' > marker introducing quoted speech. Ex.

Vai (Koelle [1854] 1968: 122, 134)

- (a) *Áro,* *wú* *ńko. . . .*
 3:SG:say 2:PL 1:SG:give
 'She said, give me. . . .'
- (b) *ā* *fó* *āye* *áro: . . .*
 3:SG:TAM say 3:SG:to that
 'He said to him: . . .'

Lezgian *luhun* 'say' > *luhu-z*, quotation marker (imperfective converb of *luhun* 'say'; Haspelmath 1993: 367). Buru *fen(e)* 'think', 'say', 'affirm' > quote marker. Ex.

Buru (Klamer 2000: 76)

| | | | | | |
|-----------|--------------|-------------|--------------|------------|----------------|
| <i>Da</i> | <i>prepa</i> | <i>fen,</i> | <i>“Sira</i> | <i>rua</i> | <i>kaduk.”</i> |
| 3:SG | say | QUOT | 3:PL | two | arrive |

'She said, "The two of them came"'

For a discussion of this grammaticalization, see also Harris and Campbell (1995: 170ff.), who use the term "quotation-to-quotative" to refer to it. See also Klamer 2000.

SAY > (7) SIMILE

Koranko *kó* 'say', verb > *íko* ('you say') 'like', 'as if', conjunction. Ex.

Koranko (Kastenholz 1987: 334)

| | | | | | |
|----------|---------------|------------|----------|-----------|-----------------|
| <i>à</i> | <i>má- ra</i> | <i>íko</i> | <i>à</i> | <i>yé</i> | <i>béle- na</i> |
| 3:SG | make-TAM | like | 3:SG | TAM | pass-TAM |

kére lá.
 horn POST
 'It seemed as if he passed the horn on.'

Vai *ro* 'say', 'suppose', 'think', verb > *i:ro, iro* (*i* 2:SG + *ro* 'say') 'as', 'as if', 'like', preposition. Ex.

Vai (Koelle [1854] 1968: 123-4)

| | | | | |
|---------------|-----------|------------|-------------|-------------------|
| <i>pòromō</i> | <i>bé</i> | <i>īro</i> | <i>músu</i> | <i>gbándawau.</i> |
| (European | COP | like | woman | unmarried) |

'A European is like an unmarried woman.'

Tamil *en* 'say, think', verb of utterance > *ena* ('say' in the infinitive) 'like'. Ex.

Tamil (T. Lehmann 1989: 377)

| | | | | | |
|---------------|-------------|------------|----------|------------------|-------------|
| <i>kumaar</i> | <i>puli</i> | <i>en-</i> | <i>a</i> | <i>paay-nt-</i> | <i>aan.</i> |
| Kumar | tiger | say-INF | | jump-PAST-3:M:SG | |

'Kumar jumped like a tiger.'

Lezgian *na luhudi* 'you would say' (YOU:ERG + archaic future of *luhun* 'say'), similarity marker 'as if'. Ex.

Lezgian (Haspelmath 1993: 247)

| | | | | | | |
|-----------|----------------|---------------|----------|-------------|-----------|-----------|
| <i>Na</i> | <i>luhudi,</i> | <i>aburu-</i> | <i>z</i> | <i>aku-</i> | <i>r-</i> | <i>di</i> |
| as | if | they- | DAT | see- | AOP- | SBST:SG |

axwar tir.
dream COP:PAST

'It was as if what they had seen was a dream.'

English **say* > West African PE *sey* 'resemble', complementizer (Lord 1989: 333). For a detailed description of how the similitive construction is expressed in the languages of Europe, see Haspelmath and Buchholz 1998. See also RESEMBLE.

SAY > (8) SUBORDINATOR

In more advanced stages of grammaticalization, SAY-verbs may develop into markers of purpose, cause, and temporal adverbial clauses; see Saxena 1988a, 1988b and Heine et al. 1991: 158–9.

Tamang *pi sam* ('say' + 'if') > conditional marker (Lord 1993: 207). Ewe *bé* 'say', verb > *bé(ná)* ('say'-HAB) 'so that', purpose clause marker. Ex.

Ewe (Heine et al. 1991: 237)

- (a) *é- bé Kofi vá.*
3:SG-say Kofi come
'He said that Kofi came.'
- (b) *me- tsó ga nê bé(ná) wo- á- ple*
1:SG-take money give:3:SG PURP 3:SG-SUBJUNCT-buy
agbalē.
book
'I gave him money so that he could buy a book.'

See also SAY > CAUSE; SAY > PURPOSE. This is an instance of a process whereby process verbs, on account of some salient semantic property, give rise to grammatical markers used for clause combining; compare RESEMBLE. However, more research on the exact conceptual nature of this process is required.

SEE > (1) ALLATIVE

Korean *poda* 'to see' (PRES:IND), verb > 'to (ALL), than' (Svorou 1994: 112). Bihari *tak* 'to see' > *taka* 'up to', 'by', 'for' (Svorou 1994: 116). Halia *tara* 'to look', 'to see' > 'to', 'toward', 'than', and so on (Svorou 1994: 116). Compare also Tamil

paar 'see', verb of perception and sensation > *paarttu* (participle form), post-position marking mental direction. Ex.

Tamil (T. Lehmann 1989: 129)

| | | | | |
|---------------|----------------------|----------------|-----------------|-------------------|
| <i>kumaar</i> | <i>raajaa-v-ai-p</i> | <i>paarttu</i> | <i>peec-in-</i> | <i>aan.</i> |
| Kumar | Raja- | ACC | toward | talk- PAST-3:M:SG |

'Kumar talked toward Raja.'

This appears to be an instance of a pathway whereby process verbs, on account of some salient semantic property, give rise to grammatical markers expressing case relations; compare ARRIVE; COME FROM; FOLLOW; GIVE; GO TO; LEAVE; TAKE. However, more research is required on the conceptual nature of this particular process.

SEE > (2) PASSIVE

This grammaticalization has been suggested by Alain Peyraube (personal communication), who volunteers the following examples: Archaic Chinese *JIAN* 'to see' > *JIAN*, passive marker. Ex.

Archaic Chinese (Alain Peyraube, personal communication)

- (a) *Mengzi* *jian* *Liang* *Hui* *wang.*
 Mencius see Liang Hui king
 'Mencius (went to) see king Hui of Liang.'
- (b) *Peng* *Chengguo* *jian* *sha.*
 Peng Chengguo PASS kill
 'Peng Chengguo was killed.'

French *voir* 'to see' > passive marker. Ex.

French (Alain Peyraube, personal communication)

| | | | | | |
|-----------|--------------|-----------|---------------|------------|--------------|
| <i>Il</i> | <i>s'est</i> | <i>vu</i> | <i>frappé</i> | <i>par</i> | <i>trois</i> |
| he | REFL:is | seen | beaten | by | three |

voyous.
 street:hoodlums
 'He has been beaten by three street hoodlums.'

Peyraube observes that similar examples can be found in other languages (e.g., Spanish and Italian). More research on this pathway is required, which appears to be an instance of a more general process whereby constructions involving certain process verbs are grammaticalized to passive constructions; see EAT; FALL; GET.

'Seize' see TAKE

SHOULDER > UP

Two African languages (Heine et al. 1991: 126) and four Oceanic languages (Bowden 1992: 36) have been found to have the body part 'shoulder' grammaticalized to a locative marker for UP. This grammaticalization appears to be

an instance of a more general process whereby certain body parts, on account of their relative location, are used as structural templates to express deictic location; compare **BACK; BELLY; BUTTOCKS; EYE; FACE; FLANK; HEAD; NECK.**

SIDE > (1) BESIDE

English *by the side of* > *beside* (Hopper and Traugott 1993: 107). Basque *bazter* 'riverside', 'edge' > *bazterrean* (= *bazter* + *ean* (LOC)) 'at the side of' (Svorou 1994: 81). Basque *alde*, *ondo*, and *albo*, all meaning 'side', can function, when case marked, as postpositions meaning 'beside'. Ex.

Basque (Anonymous reader)

| | | | |
|--------------|---------------|--------------|-----------|
| <i>zure</i> | <i>ondoan</i> | | |
| zu- | (r)e | <i>ondo-</i> | <i>an</i> |
| you- | GEN | side- | LOC |
| 'beside you' | | | |

Kono *fê* 'side (part)', relational noun > locative adverb, adposition. Ex.

Kono (Donald A. Lessau, personal communication)

- (a) *cénè* *fê* *mà-nyên-nyên!*
 house side on- write-write
 'Write (all) over the house wall!'
- (b) *mbé* *tá-á* *yíí* *fê.*
 1:SG:TAM go-TAM water along
 'I am going along/beside the water.'

Zande *patise* 'the side of the body', noun > *pai, pa* 'beside', preposition (Canon and Gore [1931] 1952: 116, 118). Supyire *ǰkèrè* 'side' > 'beside', postposition (Carlson 1991: 205). Gimira *dad¹*, *šiš¹* 'side' > postposition *da¹dn³* ('side'-case marker), *š¹šam⁴* ('side'-case marker) 'at the side of' (Breeze 1990: 38). Bulu *fefe(l)* 'side', noun > 'beside', 'at' (Hagen 1914: 241). Bulu *mfak* 'side', 'direction', 'way', noun > 'to', 'toward', 'beside', preposition (Hagen 1914: 262). Teso *e-siep* 'side', noun > *o-siep ka* (NEUT-'side of') 'beside', local preposition (Hilders and Lawrance 1958: 4, 53). Bulgarian *strana* 'side' > *otstrani* 'from aside' (lit.: 'from side'), adverb. Ex.

Bulgarian

- (a) *Na* *severnata* *strana* *na*
 on northern:DEF side of
kăštata *njamaše* *prozorci.*
 house:DEF had:not windows
 'There were no windows on the northern side of the house.'
- (b) *Decata* *se* *bjaxa* *nasăbrali*
 children:DEF REFL were gathered
okolo *koleleoto,* *a* *starecăt* *gi*
 around bicycle:DEF and old:man:DEF them

nabljudavaše *otstrani.*
observed from:side

'The children had gathered around the bicycle, and the old man was watching them from aside.'

Aranda *itere* 'the side of', noun > *itere* 'along', 'beside of', adposition (Wilkins 1989: 314–15). We are dealing with another instance of a more general process whereby relational nouns (including nouns for body parts) give rise to relational (typically spatial or temporal) grammatical markers; compare **BOTTOM**; **PLACE**; **TOP**.

SIDE > (2) LOCATIVE

Chinese *BIAN* 'side' > *BIAN* suffix for localizers (Alain Peyraube, personal communication). Lingala *epái* 'side' > *epái ya* ('side of') 'at', preposition (van Everbroeck 1958: 135). In some pidgin and creole languages, SIDE-terms appear to have given rise to general locative markers. French *côté* 'side', noun > Indian Ocean CF *kot* (Réunion CF: *kote* (*də*)) 'at the house/home of', 'to', 'toward', 'at the side of', 'against', 'near'. Ex.

Indian Ocean CF (Papen 1978: 452)

| | | | |
|-----------|--------------|------------|-------------|
| <i>Mo</i> | <i>reste</i> | <i>kot</i> | <i>Pol.</i> |
| 1:SG | live | LOC | Paul |

'I live near Paul's.'

English *side*, noun > Chinese PE *-sajd* 'at', 'to', 'on' (= French *chez*), locative suffix. Ex.

Chinese PE (Hall 1944: 97)

| | | | |
|------------------|-------------|-----------------|-------------|
| <i>f'áeŋhaj-</i> | <i>sajd</i> | <i>ófis-</i> | <i>sajd</i> |
| (Shanghai-side) | | (office-side) | |
| 'at Shanghai' | | 'at the office' | |

This is another instance of a more general process whereby relational nouns (including nouns for body parts) give rise to relational (typically spatial or temporal) grammatical markers; compare **BOTTOM**; **PLACE**; **TOP**.

SIDE > (3) NEAR

Dullay *káro* (*káriló* locative genitive) 'side', noun > *káriló* 'next to', postposition. Ex.

Dullay (Amborn et al. 1980: 102)

| | | | |
|-------------|----------------|---------------|------------------|
| <i>lóʔo</i> | <i>tálcacé</i> | <i>káriló</i> | <i>šéekáarí.</i> |
| cow | goat:LOC | next:to | stands |

'The cow stands next to the goat.'

Bulu *mfôm* 'side', 'adjacent place', 'environment', noun > 'at', 'near', 'next to', preposition (Hagen 1914: 262). Kpelle *kwelē* 'side', noun > 'at', 'near to', postposition (Westermann 1924: 12). Albanian *anë* 'side', 'edge', relational noun > *ánës*

‘at’, locative preposition (Buchholz et al. 1993: 35). Tamil *pakkam* ‘side’, relational noun > ‘near’, locative postposition. Ex.

Tamil (T. Lehmann 1989: 122)

| | | | | |
|--|----------------|---------------|------------|------------------|
| <i>anta</i> | <i>viit-tu</i> | <i>pakkam</i> | <i>oru</i> | <i>aalamaram</i> |
| that | house (OBL) | near | a | banyan:tree |
| <i>iru-kkír- atu.</i> | | | | |
| be- PRES-3:N:SG | | | | |
| ‘There is a banyan tree near our house.’ | | | | |

Compare Hagège 1993: 214. We are dealing with another instance of a more general process whereby relational nouns (including nouns for body parts) give rise to relational (typically spatial or temporal) grammatical markers; compare **BOTTOM; PLACE; TOP**.

NEAR forms can also be derived from some body parts. In Finnish, for example, it appears to be derived from the noun ‘chest’. Ex.

Finnish (Harris and Campbell 1995: 71)

- (a) *lapse-n rinna-lla*
child-GEN chest-on
‘on the child’s chest’
- (b) *lapse-n rinnalla*
child-GEN POST
‘next to the child’

SIMILE > (1) COMPLEMENTIZER

Kxoe *taá* (or *tá*) ‘be like (that)’, ‘thus’ > complementizer of clauses having utterance or cognition verbs as matrix predicates. Ex.

Kxoe (Treis 2000a: 16–17)

- (a) *Tá xàrn kx’úí.*
thus lion speak
‘Thus the lion says.’
- (b) *tcá /’úrù- na- han taá tí n#an- ná- han.*⁶¹
2:M:SG forget-JUNC-PERF COMP 1:SG think-JUNC-PERF
‘I thought you had forgotten about it.’

Tok Pisin PE *olsem* ‘thus’, adverb > complementizer. Ex.

Tok Pisin PE (Romaine 1988: 142)

- (a) *Elizabeth i tok olsem, ‘Yumi mas*
(Elizabeth AGR spoke thus we must
kisim ol samting pastaim.’
get PL thing first)
‘Elizabeth spoke thus, “We must get things first”’

⁶¹ A morpheme-final *n* symbolizes that the vowel preceding it is nasalized.

- (b) *Na yupela i no save olsem em*
 (and you(:PL) AGR NEG know COMP PRON
i matmat?
 AGR cemetery)
 'And you (PL) did not know that it was a cemetery?'

More research is required on the areal and genetic distribution of this process.

SIMILE > (2) QUOTATIVE

English *like*, comparative conjunction > *like*, nonverbatim quotative. Ex.

English (Fleischman 1999)

- (a) *My love is like a rose.*
 (b) *And I'm like: "Gimme a break, will you!"*
And I'm like OK, how am I gonna get her "chief complaint" out of her?

For a detailed analysis of this use in American English, see Romaine and Lange 1991. French *genre* 'kind', 'type', 'sort', 'genre', noun > *genre*, nonverbatim quotative. Ex.

French (Fleischman 1999)

- (a) *des gens de ce genre*
 'that kind/sort of people'
 (b) *Quand je lui ai dit que t'étais pas sûr de venir elle était vraiment pas contente, genre si vous jouez pas je chante pas.*
 'When I told her you weren't sure you were coming [to her party] she was really upset, like if you won't [be there to] play [the piano], I won't sing.'

Finnish *niinku* 'like' > *niinku*, nonverbatim quotative. Ex.

Finnish (Fleischman 1999)

Ja sit mä olin niinku että herrajjumala et voi olla totta.
 'And then I was like oh my God, I can't believe it.'

Swedish *liksom* 'like' (< 'like' + 'as') > *liksom*, nonverbatim quotative. Ex.

Swedish (Fleischman 1999)

Jag tittade på honom och liksom inte en chans!
 'I looked at him and like no way!'

German *so* 'thus', 'so', 'in this way', adverb of manner > *so*, nonverbatim quotative. Ex.

Colloquial German (Fleischman 1999)

Ich sagte ihm, dass er gehen muss. Und er
 (I told him that he go must and he
so, ich werde es mir überlegen.
 thus I will it me think:about)
 'I told him he had to go. And he's like I'll think about it.'

Kxoe *taá* 'be like (that)', 'thus', verb or particle > quotative marker. Ex.

Kxoe (Treis 2000a: 15)

| | | | | | |
|------------------------------------|------------|-----------------|------------|------------|-----------|
| <i>mà-ká</i> | <i>tcá</i> | <i>kúùn-wà-</i> | <i>gòè</i> | <i>taá</i> | <i>tí</i> |
| Q- LOC | 2:M:SG | go- I- | FUT | like:that | 1:SG |
| ‡'óa-ra- han. | | | | | |
| ask- II- | PERF | | | | |
| 'I asked you where you are going.' | | | | | |

SINCE (TEMPORAL) > CAUSE

Latin *posteaquam* 'after', 'ever since' > French *puisque* 'since', causal subordinator (Traugott and König 1991: 195). English *since*, temporal adposition, subordinator > causal subordinator. Ex.

English (Traugott and König 1991: 194)

- (a) *I have done quite a bit of writing since we last met.* (temporal)
 (b) *Since you are not coming with me, I will have to go alone.* (causal)

Basque *gero* is an adverb and postposition meaning 'after', 'later'; but when following instrumental/adverbial *-z*, it means 'since' (causal). Ex.

Basque (anonymous reader)

- (a) *Ikusi ta gero, etxera joan naiz.*

| | | | | | | |
|--------------|-----------|-------------|--------------|-----------|-------------|-----------|
| <i>Ikusi</i> | <i>ta</i> | <i>gero</i> | <i>etxe-</i> | <i>ra</i> | <i>joan</i> | <i>n-</i> |
| see[PFV] | and | after | house- | ALL | go[PFV] | 1:SG:ABS- |
| <i>aiz.</i> | | | | | | |

AUX

'After I saw it, I went home.'

- (b) *Ikusi dudanez gero, badakit nolako den.*

| | | | | | | |
|--------------|-------------|---------------|-------------|-----------|----------------|----------|
| <i>Ikusi</i> | <i>d-</i> | <i>u-</i> | <i>da-</i> | <i>n-</i> | <i>(e)z</i> | |
| see[PFV] | PRES- | AUX- | 1:SG:ERG- | SUB- | INSTR | |
| <i>gero,</i> | <i>ba-</i> | <i>d-</i> | <i>aki-</i> | <i>t</i> | <i>nolako-</i> | <i>a</i> |
| after | EMPTY-PRES- | KNOW-1:SG:ERG | | | what:kind:of- | DET |

d- e- n.

PRES-AUX-SUB

'Since I've seen it, I know what it's like.'

Aranda *-iperre* 'after', temporal marker > *-iperre*, causal clause marker (Wilkins 1989: 206, 210). Ex.

Aranda (Wilkins 1989: 206, 210)

- (a) *nwerne lhe-ke. . . dinner-iperre*

'After dinner, we went. . .'

- (b) *Ngkwerne ultake-lhe-ke re arne-nge tnye-ke-l-iperre*

'Her leg was broken from her falling out of a tree.' (i.e., because she fell out of a tree)'

This appears to be an instance of a widespread process whereby spatial and temporal markers are grammaticalized in specific contexts to markers of

“logical” grammatical relations, such as adversative, causal, concern, concessive, and conditional relations; see, for example, ALLATIVE; LOCATIVE; TEMPORAL; UP.

SIT (‘to sit’, ‘to stay’) > (1) CONTINUOUS

Yolngu *nhina-* ‘sit’, stative verb > marker of durative aspect when used in conjunction with a main verb (Austin 1998: 32). Djinba *nyina-* ‘sit’, verb > auxiliary with durative function (Waters 1989: 131). Djinang *nyini-* ‘sit’, verb > auxiliary used for an event that is a durative state (Waters 1989: 131–4). The verb *kumpa-* ‘to sit’ of Jiwarli and other Mantharta languages serves as a progressive auxiliary in certain uses (Austin 1998). Diola Fogny *-lakɔ* ‘sit’, action verb > past progressive auxiliary. Ex.

Diola Fogny (Blansitt 1975: 26–7)

i- lakɔ i- ri.

1:SG-sit 1:SG-eat

‘I was eating.’

or

i- lakɔ fu- ri.

1:SG-sit INF-eat

‘I was eating.’

Mamvu *ɬaju* ‘sit’, ‘live’, ‘stay’, verb > past progressive aspect marker (Heine and Reh 1984: 126). Ex.

Mamvu (Vorbichler 1971: 248–50)

ɔ̃bɛ mu- ɬaju.

dance 1:SG-sit

‘I was dancing.’

Nobiin *àagà, àagir* ‘sit’, ‘live’, ‘stay’, verb > *àa(g)-*, durative marker (verbal prefix). Ex.

Nobiin (Werner 1987: 152)

ày àa(g)-kàbìr.

‘I am eating.’

Kxoe *nɬuè* ‘sit’, defective verb > *nɬuè* or *-n̩*, present, progressive particle, especially used to denote an action performed while sitting (cf. Köhler 1962: 545, 1981a: 530). Ex.

Kxoe (Bernd Heine, field notes)

tí múùn-a- nɬuè.

1:SG see- I- PRES

‘I see (while sitting).’

Ngambay-Moundou *ísi* ‘sit’, verb > progressive auxiliary (Heine and Reh 1984: 126). Ex.

Ngambay-Moundou (Blansitt 1975: 27)

m- isī m- úsā dā.
 1:SG-sit 1:SG-eat meat
 'I am eating meat.'

or

m- isī mbā k- ùsà dā.
 1:SG-sit for NOMIN-eat meat
 'I am eating meat.'

Ngambay-Moundou, Mouroum dialect *isī* 'to sit', verb > progressive auxiliary (Hagège 1993: 224). Danish *sidde* 'sit' + *og* (coordinating conjunction, 'and') + head verb > progressive aspect (Blansitt 1975: 7). Burmese *ne* 'stay' > progressive auxiliary (Park 1992: 16). Kedah Malay *dudok*, *dok* 'sit', 'stay' when preceding other verbs > *dok*, progressive marker. Ex.

Kedah Malay (Rajak 1993: 123)

- (a) *Aku dok rumah Chat kemarin.*
 I stayed house Chat yesterday
 'I stayed at Chat's house yesterday.'
- (b) *Aku dok kacau Chat kemarin.*
 I PROG disturb Chat last night
 'I kept disturbing Chat last night.'

Korean *anc-* 'sit' > progressive auxiliary. Ex.

Korean (Song 2000: 5, 22)

- (a) *ku haksayng- i chayksang- aph- ey*
 the student- NOM desk- front- LOC
anc- a- iss- ta.
 sit- F- is- IND
 'The student is sitting at the desk.'
- (b) *oay ne- nun mayn nal*
 why you- TOP every day
ttwimcil- man ha- ko anc-
 running- only do- CONJ sit-
a- iss- nya?
 F- is- Q
 'Why are you doing nothing but running every day?'

This pathway is part of a more general process whereby postural verbs ('sit', stand', 'lie') are grammaticalized to continuous and other aspectual markers (see, e.g., Bybee et al. 1994: 127); compare LIE; STAND and see also SIT > HABITUAL. Kuteva (1999, forthc.b) proposes a four-stage grammaticalization development of the bodily posture verbs SIT, STAND, and LIE into CONTINUOUS markers: human bodily posture verbs > canonical encoding of spatial position

of objects > CONTINUOUS (with inanimate subjects) > CONTINUOUS (with both inanimate and animate subjects). For an alternative proposal, see Song 2000.

SIT ('to sit', 'to stay') > (2) COPULA

Latin *sēdēre* 'to sit' > Spanish *ser* 'be (*de natura*)' (Corominas 1954b: 194–5). Imonda *ale* 'sit', 'remain', 'stay' > copula. Ex.

Imonda (W. Seiler 1985: 158)

| | | |
|-------------------|---------------|---------------|
| <i>Louise</i> | <i>kuii-l</i> | <i>ale-f.</i> |
| Louise | long-NOMIN | sit- PRES |
| 'Louise is tall.' | | |

Sango *duti* 'sit' > copula expressing description and location. Ex.

Sango (Thornell 1997: 122)

| | | | | | |
|--|-----------|-------------|-----------|--------------|----------------|
| <i>Töngana</i> | <i>mo</i> | <i>duti</i> | <i>na</i> | <i>mbênî</i> | <i>zò. . .</i> |
| when | 2:SG | sit | with | INDEF | human |
| 'When you are together with somebody. . .' | | | | | |

Not infrequently, verbs meaning 'sit' have some copula-like uses in certain contexts. For example, the verb *kumpa-* 'to sit' of Jiwari includes such meanings as 'to camp', 'to stay', 'to live', and 'to be' (Austin 1998: 21). This pathway appears to be primarily an instance of desemanticization, but more information is required on the conceptual nature of the process.

SIT ('to sit', 'to stay') > (3) HABITUAL

SIT-verbs may give rise to CONTINUOUS markers (see SIT > CONTINUOUS), which again may further develop into HABITUAL markers. Yankunytjatjara *nyina-* 'to sit' > auxiliary serving to code a "customary" or generic situation. Ex.

Yankunytjatjara (Goddard 1985: 207; Austin 1998: 32)

| | | | | | |
|-----------------------------|-------------|---------------|------------|-----------|---------------|
| <i>Wati-</i> | <i>ngku</i> | <i>karli</i> | <i>at-</i> | <i>ra</i> | <i>nyina-</i> |
| man- | ERG | boomerang:ACC | chop- | serial | sit- |
| <i>nyi.</i> | | | | | |
| PRES | | | | | |
| 'The man makes boomerangs.' | | | | | |

Dutch *zitten* 'to sit', verb > *zitten te* + INF 'to do habitually', habitual aspect auxiliary (Stolz 1992b: 292). Bulgarian *sedja* 'sit' + *i* 'and' + main verb > habitual marker. Ex.

Bulgarian (Kuteva 1999: 195)

| | | | | |
|---------------|----------|-----------------|-----------|-------------|
| <i>Sedi</i> | <i>i</i> | <i>čisti</i> | <i>po</i> | <i>cjal</i> |
| sit:3:SG:PRES | and | clean:3:SG:PRES | along | whole |
| <i>den</i> | <i>v</i> | <i>kăšti</i> | | |
| day | in | house | | |

'She cleans the house all day long.' / 'She habitually cleans the house all day long.'

Kanakuru *ɸuwo* ‘remain’, ‘sit’, verb > habitual auxiliary. Ex.

Kanakuru (Newman and Schuh 1974: 35)

- (a) à ɸùwò- tó.
 (3:SG sit- 3:F:SG)
 ‘She remained.’ / ‘She sat.’
- (b) (à) ɸùwò -tó shír- máí.
 ((3:SG) sit- 3:F:SG steal)
 ‘She habitually steals.’

Shona *-gara* ‘sit’, ‘live’, ‘stay’, verb > durative, habitual auxiliary. Ex.

Shona (Hannan 1987: 184)

- (a) U- no- gara ku- pi?
 (2:SG-PRES-sit LOC-INTER)
 ‘Where do you live?’
- (b) ndi- no- gara ndi- chi- dya ne- nguva dzino.
 1:SG-PRES-sit 1:SG-PM-eat COM-time this
 ‘I usually eat at this time.’

Sudan Arabic *ga:ʔid* ‘sit’, verb > Nubi CA *gí*, progressive, habitual particle (Boretzky 1988: 60–1). This pathway is part of a more general process whereby postural verbs (‘sit’, ‘stand’, ‘lie’) are grammaticalized to continuous and other aspectual markers; compare LIE; STAND; see also SIT > CONTINUOUS.

SKY > UP

Teso *a-kuju* ‘sky’, ‘heaven’, noun > *kuju* ‘above’, ‘over’, ‘up’, adverb (Kitching 1915: 74). Bulu *yôp* ‘sky’, ‘firmament’, noun > ‘above, up, on’, adverb and preposition (Hagen 1914: 313). Kikuyu *igũrũ* ‘sky’, ‘heaven’, noun > (a) ‘on top’, (b) *igũrũ rĩa* (lit.: ‘sky of’) > ‘above’, preposition. Ex.

Kikuyu (Barlow 1960: 202)

- | | | | | |
|---------------|-------------|-------------|------------|--------------|
| <i>Nyonyi</i> | <i>i-</i> | <i>thi-</i> | <i>aga</i> | <i>igũrũ</i> |
| (c10:bird | c10-go- | | DUR | sky |
| <i>rĩa</i> | <i>mĩĩ.</i> | | | |
| of | c4:tree) | | | |
- ‘The birds fly above the trees.’

Lingala *likoló* ‘sky’, noun > *o likoló lya/za* (LOC sky GEN) ‘over’, ‘on’, preposition. Ex.

Lingala (van Everbroeck 1958: 141)

- ótíya masáni o likoló lya mésa!*
 ‘Put the crockery on the table!’

Moré *nyingri* ‘firmament, sky’ > ‘above’, ‘up’ (adverb). Ex.

Moré (Alexandre 1953b: 292)

- (a) *ädes bé nyǐngri*
 ‘The stars are at the firmament.’
- (b) *gyēs nyǐngri!*
 ‘Look up!’

In some regions (e.g., in much of the southern half of Africa), this constitutes the primary source for UP markers. Thus, the Proto-Bantu noun *-*gudu* or *-*judu* ‘sky’, ‘top’ has given rise to many superessive markers (‘above’, ‘up’) in Bantu languages in the form of adverbs, prepositions, or affixes (see Güldemann 1999b: 53–5 for details). This is an instance of a process whereby a noun, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; see, for example, **BACK**; **EARTH**; **HOME**.

SONG > CLASSIFIER

Kilivila *vosi* ‘song’ > classificatory particle for song, parts of a song (Senft 1996: 175, 352). Hmong *zaj* ‘song’ > classifier for sayings, speeches, and songs (Bisang 1999: 131, 167, 173). Concerning the rise and development of classifiers in Chinese, see Peyraube 1998.

This grammaticalization appears to be part of a more general process whereby certain nouns, on account of some specific semantic characteristic, are recruited as structural templates for a folk taxonomic classification of nominal concepts; see also **BRANCH**; **CHILD**; **MAN**; **PIECE**; **TREE**; **WOMAN**. More research is required on the genetic and areal distribution of this process.

‘Speak’ see **SAY**

STAND > (1) CONTINUOUS

Yolngu *dhärra-* ‘stand’, stative verb > marker of durative aspect when used in conjunction with a main verb (Austin 1998: 32). Djinang *djirri-* ‘stand’, verb > auxiliary marking an event that is a durative state (Waters 1989: 131–4). Dutch *staan* ‘to stand’, verb > *staan te* + INF ‘to be doing’, progressive aspect auxiliary (Stolz 1992b: 292). Bulgarian *stoja* ‘to stand’, verb > *stoja + i* ‘and’ + MAIN VERB continuous marker. Ex.

Bulgarian (Kuteva 1999: 194)

| | | | |
|-----------------|--------------------|-----------|---------------------------|
| <i>Stoi</i> | <i>i</i> | <i>se</i> | <i>ogležda</i> |
| stand:3:SG:PRES | and | REFL | look:at:oneself:3:SG:PRES |
| <i>v</i> | <i>ogledaloto!</i> | | |
| in | mirror:DEF | | |

‘She’s been looking at herself in the mirror all the time!’

Latin *stare* ‘to stand’, verb > Italian *stare (a fare)* (intensive) progressive. Ex.

Italian (Devoto and Oli 1971: 2347)

| | | | |
|-------------|-------------|----------|-----------------|
| <i>cosa</i> | <i>stai</i> | <i>a</i> | <i>leggere?</i> |
| (what | stand:2:SG | at | read:INF) |

('What are you reading there?')

Latin *stare* 'to stand', verb > Spanish *estar*, durative auxiliary. Ex.

Spanish (Corominas 1954a: 420)

| | |
|-------------|-----------------|
| <i>está</i> | <i>pasando.</i> |
| be:3:SG | pass:GER |

'He is passing.'

Ngambay-Moundou *ár* 'stand', verb > progressive auxiliary. Ex.

Ngambay-Moundou (Heine and Reh 1984: 126)

| | | |
|--------------|---------------|------------|
| <i>m- ár</i> | <i>m- úsā</i> | <i>dā.</i> |
| 1:SG-stand | 1:SG-eat | meat |

'I am eating meat.'

or

| | | | | |
|--------------|------------|-----------|------------|------------|
| <i>m- ár</i> | <i>mbā</i> | <i>k-</i> | <i>úsā</i> | <i>dā.</i> |
| 1:SG-stand | for | NOMIN-eat | | meat |

'I am eating meat.'

Kxoe *té* or *tín* 'stand', 'be present', verb > *tè* present tense/continuous marker, especially used to denote an action performed in a standing position (cf. Köhler 1962: 545). Ex.

Kxoe (Bernd Heine, field notes)

| | | | |
|-----------|--------------|-----------|------------|
| <i>tí</i> | <i>múùn-</i> | <i>à-</i> | <i>tè.</i> |
| (1:SG | see | I- | PRES) |

'I see (while standing).'

Tatar *tor-* 'stand' (preceded by a gerund) > progressive marker (Blansitt 1975: 28). Diegueño verb for 'stand' > progressive auxiliary (Blansitt 1975: 26). Ex.

Diegueño (Blansitt 1975: 26)

| | |
|--------------|-----------------|
| <i>?a.yp</i> | <i>ta?yu.w.</i> |
| I:talk | I'm:standing |

'I'm talking.'

Imonda *lōh* 'stand', 'be' > durative marker. Ex.

Imonda (Seiler 1985: 105)

| | | | | |
|-----------|------------------|------------------|-----------|-----------|
| <i>po</i> | <i>feha-lōh-</i> | <i>ō-</i> | <i>n-</i> | <i>b.</i> |
| water | fall- | DUR-LNK-PAST-DUR | | |

'It was raining for a long time.'

Tariana posture verb 'stand' > durative marker (Aikhenvald 1997). Ex.

Tariana (Aikhenvald 1997: 7)

| | | |
|-------------------|----------------|--------------|
| <i>tuiri-kere</i> | <i>na- hwa</i> | <i>nema.</i> |
| bird-island | 3:PL-stay | 3:PL:stand |

‘They stayed at Bird island for a long time.’

This pathway is part of a more general process whereby postural verbs (‘sit’, ‘stand’, ‘lie’) are grammaticalized to continuous and other aspectual markers; compare LIE; SIT; see also SIT > HABITUAL. Kuteva (1999; forthc.b) proposes a four-stage grammaticalization development of the bodily posture verbs SIT, STAND, and LIE into CONTINUOUS markers: human bodily posture verbs > canonical encoding of spatial position of objects > CONTINUOUS (with inanimate subjects) > CONTINUOUS (with both inanimate and animate subjects).

CONTINUOUS markers may further develop into HABITUAL markers; for example, Imonda *lōh* ‘stand’, ‘be’ > habitual aspect marker. Ex.

Imonda (Seiler 1985: 105)

| | | | |
|---------------|-----------|------------|--------------------|
| <i>ed- ia</i> | <i>ka</i> | <i>nòn</i> | <i>li- lōh- f.</i> |
| PX-LOC | I | sleep | lie-HAB-PRES |

‘I (habitually) sleep over there.’

STAND > (2) COPULA

Latin *stare* ‘to stand’, verb > Spanish, Portuguese *estar*, French *être* ‘to be’, copula auxiliary (Corominas 1954a: 420; Lehmann 1982: 27). Kxoe *tīn* ‘stand’, ‘be present’ > *té* ‘be’ (Köhler 1981a: 530). Imonda *lōh* ‘to stand’ (verb stem) > copula *-lōh* (“verb root”). Ex.

Imonda (Seiler 1985: 107, 158)

- | | | | | |
|-----------------|--------------|--------------|-------------|-----------|
| (a) <i>agō-</i> | <i>ianèi</i> | <i>sabla</i> | <i>ed-</i> | <i>ia</i> |
| women- | NPL | two | PX- | LOC |
| <i>ekuk</i> | <i>lōh-</i> | <i>ual-</i> | <i>fna.</i> | |
| distance | stand- | DU- | PROG | |
- ‘The two women were standing there in the distance.’
- | | | | | | |
|------------------|---------------|------------------|--------------|-------------|-----------|
| (b) <i>pīlin</i> | <i>ed- ia</i> | <i>fa-</i> | <i>hōdō-</i> | <i>lōh-</i> | <i>f.</i> |
| plate | PX-LOC | CLASS-put:up-be- | | PRES | |
- ‘The plate is up there.’

This is an instance of a more general process whereby postural verbs serve to develop copular markers; compare LIE; SIT.

‘Start’ see BEGIN

‘Stay’ see LIVE

‘Stomach’ see BELLY

STOP > PROHIBITIVE

Welsh *peidio* 'cease', 'stop' > prohibitive auxiliary. Ex.

Welsh (*Wiliam 1960: 78*)

| | | |
|----------------|----------|--------------|
| <i>Paid</i> | <i>â</i> | <i>mynd!</i> |
| (stop:IMP:2:SG | and | go:VN) |
| 'Don't go!' | | |

Kru languages (*Marchese 1986*) 'stop' > negative imperative/optative marker. Ex.

Bassa (*Marchese 1986: 191*)

| | | |
|---------------|------------|---------------|
| <i>bɔ</i> | <i>kùà</i> | <i>nyu-ε.</i> |
| stop | work | do- NOMIN |
| 'Don't work.' | | |

Klao (*Marchese 1986: 191*)

| | | |
|-----------------------|-----------|--------------------|
| <i>bɔ</i> | <i>dε</i> | <i>di- di- dε.</i> |
| stop | thing | eat-eat-NOMIN |
| 'Don't eat anything.' | | |

Tchien Krahn (*Marchese 1986: 191*)

| | | | |
|----------------------------|------------|-------------|----------------|
| <i>ɔ́</i> | <i>bɔ́</i> | <i>dbū'</i> | <i>tê- ě́.</i> |
| he | stop | rope | buy-NOMIN |
| 'He shouldn't buy a rope.' | | | |

Sapo (*Marchese 1986: 191*)

- | | | | | |
|-----|---------------------------|------------|-----------|----------------|
| (a) | <i>ɔ</i> | <i>bɔ</i> | <i>kò</i> | <i>dī- ě́.</i> |
| | he | stop | rice | eat-NOMIN |
| | 'He stopped eating rice.' | | | |
| (b) | <i>b- ɔ</i> | <i>bɔ́</i> | <i>kò</i> | <i>dī- ě́.</i> |
| | that-he | stop | rice | eat-NOMIN |
| | 'He mustn't eat rice.' | | | |

Wobé (*Marchese 1986: 192*)

- | | | | |
|-----|-----------------------|------------|-----------------|
| (a) | <i>ɔ́</i> | <i>bɔ́</i> | <i>blé'- á.</i> |
| | he | stop | sing-NOMIN |
| | 'He stopped singing.' | | |
| (b) | <i>ě́</i> | <i>bò</i> | <i>à blāā</i> |
| | you | NEG | us hit:NOMIN |
| | 'Don't hit us.' | | |

Teso *ai-nyekin* 'INF-stop', verb > prohibitive auxiliary. Ex.

Teso (*Hilders and Lawrance 1956: 30*)

| | |
|-----------------|------------------|
| <i>Ki- nyek</i> | <i>a- losit!</i> |
| (2:SG-stop | INF-go) |
| 'Do not go!' | |

Seychelles CF *aret* ‘stop’ > negative imperative.⁶² Ex.

Seychelles CF (Corne 1977: 184)

| | | |
|-------------|------------|---------------|
| <i>aret</i> | <i>vol</i> | <i>sitrô!</i> |
| (stop | steal | lime) |

‘Stop stealing the limes!’

This is an instance of a process whereby a verb, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; see also COME FROM; COME TO; CROSS; EXCEED; FALL; PASS; RESEMBLE.

SUFFER > PASSIVE

Vietnamese *bị* ‘suffer’ > passive marker (Haspelmath 1990: 41). Korean *dangha-* ‘suffer’ > passive marker (with adversative and beneficial flavors; Haspelmath 1990: 41). Warring States period Chinese *bei* ‘to receive’, ‘to suffer’, ‘to be affected’⁶³ > Early Medieval Chinese (second–sixth centuries A.D.) *bei*, passive marker. Ex.

Early Medieval Chinese (*Shi shuo xin yu: fang zheng; quoted from Peyraube 1996: 176*)

| | | | | |
|----------------|------------|-----------|------------|-------------|
| <i>Liangzi</i> | <i>bei</i> | <i>Su</i> | <i>Jun</i> | <i>hai.</i> |
| Liangzi | PASS | Su | Jun | kill |

‘Liangzi was killed by Sun Jun.’

More research is required on the exact nature and the genetic and areal distribution of this process. This appears to be an instance of a more general process whereby constructions involving inactive verbs are grammaticalized to passive constructions; see also EAT; FALL; GET; SEE.

‘Sufficient’ see SUITABLE

SUITABLE (‘to be sufficient, enough’, ‘to be fitting’, ‘to be suitable’) > (1) ABILITY

Classical Chinese *zu* ‘to suffice’, ‘to be sufficient’, verb > auxiliary verb meaning (a) ‘to be worthy of’, (b) ‘can’, ‘to be able’ (Peyraube 1999: 36ff.). Ex.

Warring States period Chinese (Peyraube 1999: 37)

| | | | | |
|------------|------------|-------------|-----------|-----------|
| <i>gu</i> | <i>tui</i> | <i>en</i> | <i>zu</i> | <i>yi</i> |
| therefore | carry:out | kindness | able:to | with |
| <i>bao</i> | <i>si</i> | <i>hai.</i> | | |
| protect | four | sea | | |

⁶² This Seychelles CF example appears to be a weakly grammaticalized instance of the process since the lexical meaning (‘stop’) is still present.

⁶³ Originally, *bei* was a noun meaning ‘blanket’. It later turned into a verb meaning ‘to cover’, ‘to wear’ before acquiring the meanings ‘to receive’, ‘to suffer’, ‘to be affected’ (Peyraube 1996: 176).

‘Therefore, (if one) carries out (his) kindness, (he)⁶⁴ will be able, with (it), to protect the (people of the) world.’

Sango *lingbi* ‘suffice’, ‘fit’, verb > ‘can’, marker of ability (Thornell 1997: 143).
Lingala *-koka* ‘fit’, verb > auxiliary expressing ability. Ex.

Lingala (Mufwene and Bokamba 1979: 244–7)

- (a) *Kázi a -kok-í na lisano óyo.*
(Kazi he-fit -NPERF COM game this)
‘Kazi should be good for this game.’
- (b) *Kázi a -kok-í ko- béta ndembó.*
Kazi he-fit -NPERF INF- beat soccer:ball
‘Kazi can play soccer.’

Awtuw *yirin* ‘enough’ > marker of ability (used in conjunction with the future tense). Ex.

Awtuw (Feldman 1986: 57)

| | | | | |
|--------------|-------------|--------------|-------------|------------|
| <i>Topor</i> | <i>yɛn</i> | <i>yirin</i> | <i>yekə</i> | <i>taw</i> |
| that | child | enough | PART | tree |
| <i>w-</i> | <i>uwk-</i> | <i>re.</i> | | |
| IMPFV- | fell- | FUT | | |

‘That child can fell a tree.’

More research is required on the conceptual and contextual frame of this grammaticalization.

SUITABLE (‘to be sufficient, enough’, ‘to be fitting’, ‘to be suitable’) > (2) OBLIGATION

Luo *winjore* ‘it is convenient’, ‘fitting’ > *o-winjore* ‘should’, ‘ought’, deontic marker of necessity); *nego* ‘fit into’ > *o-nego* ‘ought’, deontic marker of obligation (Bavin 1995: 119). Acholi *myero* ‘need’, ‘be suitable’, ‘fit’, ‘becoming’ > *o-myero* (third person past form) ‘should’, ‘have to’, marker of deontic modality of necessity and obligation, also marker of epistemic modality (Bavin 1995: 117, 123–5). Ik *itámáan-ón* ‘to be enough’, state verb > ‘must’, ‘have to’, marker of deontic modality of obligation). Ex.

Ik

- (a) *itámáan- ón.*
be:enough-INF
‘It is enough.’
- (b) *itámááná en- íá níci wík.*
be:enough see-1:SG my children
‘I have to see my children.’

⁶⁴ Presumably, the intended meaning is ‘one’s’, rather than ‘his’, and ‘one’, rather than ‘he’.

Evidence for this grammaticalization comes exclusively from African languages; conceivably, therefore, we are dealing with an areal phenomenon. More cross-linguistic data are required to establish this grammaticalization as a more general process.

‘Surpass’ see EXCEED; PASS

SURROUND > AROUND (SPATIAL)

Ewe *fo xlá* ‘surround’, verb > *foxlá* ‘round about’, ‘round and round’ (Lord 1989: 367). (French *entourer* >) Haitian CF *āturé* ‘surround’ > ‘around’ (Sylvain 1936: 133). Ex.

Haitian CF

| | | | | |
|-----------|---------------|--------------|-------------|------------|
| <i>Gě</i> | <i>pyébwa</i> | <i>āturé</i> | <i>kay-</i> | <i>la.</i> |
| (EXIST | tree | around | house-DEF) | |

‘There are trees around the house.’

For more examples from pidgins and creoles, see Arends et al. 1995 and Muysken and Veenstra 1995: 290ff. This is an instance of a process whereby a verb, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; see also COME FROM; COME TO; CROSS; EXCEED; FALL; PASS; RESEMBLE; STOP.

T

TAKE (‘to take’, ‘to seize’) > (1) CAUSATIVE

Chinese *BA* ‘to take’ > *BA*, causative marker (Alain Peyraube, personal communication). Twi **de* ‘take’ > *de* transitivizer, causative marker. Ex.

Twi (Riis 1854: 97; Lord 1989: 137,143)

| | | | | |
|-----------|-----------|-------------|-----------|------------|
| <i>o-</i> | <i>de</i> | <i>gwañ</i> | <i>a-</i> | <i>ba.</i> |
| he-(take) | | sheep | PFV-come | |

‘He has brought a sheep.’

Nupe *la* ‘take’, verb > transitivizer, causative marker. Ex.

Nupe (Lord 1989: 225)

| | | | |
|---------------|-----------|----------------|-------------|
| <i>yígídí</i> | <i>lá</i> | <i>mángòrò</i> | <i>dzú.</i> |
| sun | (took) | mango | red |

‘The sun reddened the mango.’

Lord (1989: 237) notes that the verb for ‘take’ in the Amerindian language Chikasaw can mark instruments and has the effect of making intransitive motion verbs transitive (or causative). Still, this grammaticalization needs more research to determine its exact nature and its genetic and areal distribution.

TAKE ('to take', 'to seize') > (2) COMITATIVE

Twí **de* 'take' > comitative (Lord 1989: 134ff.). Ex.

Twí (Lord 1989: 137)

| | | | | | |
|-----------|-----------|-----------|--------------|-------------|---------------|
| <i>ɔ-</i> | <i>de</i> | <i>né</i> | <i>nnípa</i> | <i>fòro</i> | <i>bépow.</i> |
| he- | (take) | his | men | ascend | mountain |

'He ascends a mountain with his men.'

Nama 'úú 'take', 'seize', verb > -'ú, comitative 'with', 'along', ('"accompanitive"') suffix (Hagman 1977: 77–8). Ex.

Nama (Krönlein 1889: 312; Hagman 1977: 78)

- (a) *ó* //na /gui soa- sa.
(take that one barrel-3:F:SG)
'Take one barrel down.'
- (b) *tiíta* ke #úú-nà ra /xií- 'ú.
(1:SG PART eat- 3:PL:C IMPFV come-COM)
'I am bringing food.' (lit.: "I am coming with food")

See Muysken and Veenstra 1995: 290 for examples from pidgins and creoles. A somewhat unusual series of grammaticalizations appears to have occurred in Chinese, where the verbs *ji* 'to catch up (with)', 'to succeed', *yu* 'to give', and *gong* 'to share (with)' (> 'together' > 'with')⁶⁵ are said to have given rise to comitative prepositions (Peyraube 1996: 188–9). The exact conceptual nature of the present process is not yet entirely clear; more examples are required. Nevertheless, we seem to be dealing with an instance of a process whereby process verbs give rise to grammatical markers expressing case relations; compare COME FROM; FOLLOW; GIVE; GO TO; SEE.

TAKE ('to take', 'to seize') > (3) COMPLETIVE

Dogon *jè* 'take', verb > -*jé-*, aspect marker of completed actions (Calame-Griaule 1968: xxxii). Nupe *(*l*)*á* 'take', verb > (*l*)*á*, completive focus marker. Ex.

Nupe (Heine and Reh 1984: 163)

| | | | | | | |
|---------------|----------|-------------|---|-------------|----------|-------------|
| * <i>musa</i> | <i>á</i> | <i>tsu.</i> | > | <i>musa</i> | <i>á</i> | <i>tsu.</i> |
| Musa | took | death/dying | | Musa | PRED:FOC | died |

'Musa is dead.'

Compare also Gwari *lá*, PL *kú* 'take', verb > perfective aspect marker. Ex.

⁶⁵ In particular, the last case deserves attention since, conceivably, there are other languages that have undergone a similar process. Originally, a verb meaning 'to share (with)', *gong* was grammaticalized to an adverb 'together' in Late Archaic Chinese. Since the Early Medieval period, it developed into a comitative preposition ('with'), and from the Song period onward it acquired uses as an NP-and conjunction (Peyraube 1996: 189–90).

Gwari (Hyman and Magaji 1971: 66)

| | |
|-------------------------|----------------------------|
| <i>wó lá shnamá lă.</i> | <i>wó kú à- shnamá kù.</i> |
| (he PFV yam take:SG) | (he PFV PL-yam take:PL) |
| 'He has taken a yam.' | 'He has taken some yams.' |

Fa d'Ambu CP *ma* 'take', verb > resultative aspect marker. Ex.

Fa d'Ambu CP (Post 1992: 164)

| | | | |
|----------------------------------|-----------|--------------|--------------|
| <i>mina</i> | <i>ma</i> | <i>dyumi</i> | <i>beza.</i> |
| child | take | sleep | already |
| 'The child fell asleep already.' | | | |

This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare COME TO; DO; FINISH; GO TO; KEEP; LEAVE.

TAKE ('to take', 'to seize') > (4) FUTURE

Chinese *JIANG* 'to hold', 'to take' > *JIANG* future tense marker (Alain Peyraube, personal communication). Sinto *lav* 'to take' > future marker. Ex.

Sinto (Ramat 1987: 15)

| | | |
|---------------|-----------|--------------|
| <i>lav</i> | <i>te</i> | <i>ǵáva.</i> |
| take:1:SG | that | go:1:SG |
| 'I shall go.' | | |

Hungarian *fog* 'take', 'fetch', 'start', verb of action > auxiliary verb marking future tense. Ex.

Hungarian (Szent-Iványi 1964: 89)

| | | |
|----------------|-------------|------------|
| <i>várni</i> | <i>fog-</i> | <i>ok.</i> |
| (INF:wait | fetch- | 1:SG:PRES) |
| 'I will wait.' | | |

We are listing this case only tentatively here; more research is required on the exact nature and the genetic and areal distribution of it. Conceivably, it is an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare COME TO; DO; FINISH; GO TO; KEEP; LEAVE.

TAKE ('to take', 'to seize') > (5) INSTRUMENT

Lahu *yù lɛ* 'take' > 'with', instrument postposition ("verposition") (Matisoff 1991). Ex.

Lahu (Matisoff 1991: 434)

| | | | | |
|-----------|----------------|-----------|-----------|--------------|
| <i>yǒ</i> | <i>á-cu-ka</i> | <i>yù</i> | <i>lɛ</i> | <i>gǒ-cá</i> |
| 3:SG | chopstick | take | PART | cabbage |

câ *ve.*

eat PART

'He eats cabbage with chopsticks.' (lit.: 'He, taking chopsticks, eats cabbage')

Chinese *ba* 'to take', 'to hold', 'to grasp' > instrument marker when used as V_1 in a serial verb construction (Peyraube 1988: 619–26, 1996: 168ff.). Nupe *la* 'take', verb > instrument marker (Lord 1989: 226). Dagbane *zang* 'take', verb > instrument marker (Lord 1989: 227). Efik *dá* 'take', verb > instrument case marker. Ex.

Efik (Welmers 1968: 69; Claudi 1993: 45)

dá *èkuri* *sibé* *éto.*

take axe cut tree

'Cut down the tree with an axe.'

Ijo *àkí* 'take', verb > instrument case marker. Ex.

Kolokuma, dialect of Ijo (Claudi 1993: 46)

erí *ogidi* *akí-nì* *indi* *pèj-* *mí.*

he machete take fish cut:up-PAST

'He cut up a fish with a machete.'

For more examples from pidgins and creoles, see Muysken and Veenstra 1995: 290ff. That TAKE-verbs assume an INSTRUMENT function in certain contexts can be observed in quite a number of languages. It is unclear, however, whether or to what extent the TAKE-verbs figuring in the previous examples have in fact developed into fully conventionalized INSTRUMENT markers. We are dealing with an instance of a more general process whereby process verbs, on account of some salient semantic property, give rise to grammatical markers expressing case relations; compare COME FROM; FOLLOW; GIVE; GO TO; SEE.

TAKE ('to take', 'to seize') > (6) PATIENT

Classical Chinese *bǎ* 'take hold of' > Mandarin Chinese *bǎ*, object marker (Li and Thompson 1981: 463–91; see also Peyraube 1996; Sun 1996: 61ff.).⁶⁶ Chinese *jiang* 'to take', 'to hold'⁶⁷ > preverbal object (or theme/undergoer) marker (Sun 1996: 60–5). Ex.

Old Chinese (Shijing; quoted from Sun 1996: 60)

(a) *wu* *jiang* *dache.*

NEG hold cart

'Do not drive the cart.'

⁶⁶ In a similar fashion, this Chinese example is described by Peyraube as a development from a verb *ba* 'to take', 'to hold', 'to grasp' to an accusative marker when used as V_1 in a serial verb construction (Peyraube 1988: 619–26).

⁶⁷ Before 600 A.D., *jiang* was used primarily as a verb meaning 'to assist', 'to guide', 'to give' (Sun 1996: 60).

Tenth century Chinese (Zutangji; quoted from Sun 1996: 68)

| | | | | |
|------------------------------------|--------------|-----------------|-----------|------------|
| (b) <i>shei</i> | <i>jiang</i> | <i>sheng-si</i> | <i>yu</i> | <i>ru?</i> |
| who | JIANG | live- death | give | you |
| 'Who (would) give you (his) life?' | | | | |

Lord (1993: 135) also mentions Kalam in this connection, where the verb *d* 'take' appears to mark instrument and patient objects in specific contexts. Ex.

Kalam (Lord 1993: 135)

| | | | | | |
|---|--------------|-----------|-----------|-------------|---------------|
| ... | <i>bin-</i> | <i>ak</i> | <i>ak</i> | <i>spet</i> | <i>ominal</i> |
| | man- | DEF | DEF | spade | two |
| <i>d-</i> | <i>ap...</i> | | | | |
| take- | come | | | | |
| '... the man brings over two spades. ...' | | | | | |

Engenni *tou* 'take' > object marker (Lord 1989: 230). Vagala *kpa* 'take' > object marker (Lord 1989: 237). Ga **kè* 'take', verb > *kè*, accusative case marker (Lord 1982: 287). Twi **de* 'take' > *de*, object marker. Ex.

Twi (Lord 1989: 136)

| | | | | |
|---------------------------------------|-------------|-----------|-----------------|-----------|
| <i>o- de</i> | <i>afoa</i> | <i>ce</i> | <i>boha-</i> | <i>m.</i> |
| he-(take) | sword | put | scabbard-inside | |
| 'He put the sword into the scabbard.' | | | | |

Note that with transfer verbs involving physical manipulation, such as *ma* 'give', *kye* 'give', *bre* 'bring', and *mane* 'send', definite direct objects must be introduced by means of *de*, which according to Lord is historically derived from **de* 'take'. Ex.

Twi (Lord 1989: 204)

| | | | | |
|---------------------------|-------------|-------------|------------|------------|
| <i>ɔ- de</i> | <i>siká</i> | <i>nó</i> | <i>maa</i> | <i>me.</i> |
| he-(take) | money | the | gave | me |
| 'He gave me the money.' | | | | |
| * <i>ɔ-maa</i> | <i>me</i> | <i>siká</i> | <i>nó</i> | |
| he-gave | me | money | DEF | |
| '(He gave me the money).' | | | | |

See Givón 1975a: 76, 88–9, 93ff. and Lord 1982, 1989: 14ff., 1993 for more examples. For examples from pidgins and creoles, see Muysken and Veenstra 1995: 290ff. This appears to be another instance of a more general process whereby process verbs, on account of some salient semantic property, give rise to grammatical markers expressing case relations; compare COME FROM; FOLLOW; GIVE; GO TO; SEE.

TAKE ('to take', 'to seize') > (7) H-POSSESSIVE⁶⁸

Proto-Germanic **hafjan* 'seize', verb > English *have*, German *haben* 'to have' (Lehmann 1982: 27). Waata (Oromo dialect) *qaw-* 'take', 'seize', action verb > 'have', marker of predicative possession (HAVE-POSSESSION). Ex.

⁶⁸ H-POSSESSIVE, or HAVE-possessive, stands for constructions of predicative possession, as in *I have a dog*.

Waata (Claudi 1986: 13)

- (a) *ani* *híntal* *qaw-* *a*.
 I girl seize- IMPFV
 'I seize a girl.'
- (b) *ani* *mín* *qaw-* *a*.
 I house seize- IMPFV
 'I have a house.'

In some Akan languages of West Africa, there are verbs whose meanings include 'take' as well as 'have', 'possess'; compare Twi *de* 'take', 'hold', 'have', 'possess', 'own' (Lord 1993: 70–1). This process has been documented abundantly, especially in European languages, where verbs meaning 'take', 'seize', or 'hold' have given rise to HAVE-verbs, that is, to markers of predicative possession. For more details, see Heine 1997a.

TEMPORAL > (1) ADVERSATIVE

Vai *so mu* ('time' COP) 'it is (the) time' > *sómu* 'at the same time', 'but', 'however', conjunction (Koelle [1854] 1968: 39). Lingala *ndé* or *nzóka ndé* 'while', 'when', 'then', temporal conjunctions > 'but', 'although', adversative conjunction. Ex.

Lingala (van Everbroeck 1958: 83)

nabyángákí yó, nzóka ndé okéndéki kotámbola.
 'I called you but while you were out for a walk.'

So far, only examples from African languages have been found. Nevertheless, this appears to be an instance of a widespread process whereby temporal markers are grammaticalized in specific contexts to markers of "logical" grammatical relations, such as adversative, causal, concessive, and conditional relations; see, for example, *SINCE*.

TEMPORAL > (2) CAUSE

Old High German *dia wila so* 'so long as' > German *weil* 'because' (Traugott and König 1991: 197). Latin *posteaquam* 'after', 'ever since' > French *puisque* 'since', causal marker; French *quand* 'when', 'because' (Traugott and König 1991: 197). Latin *dum* 'when', 'as long as', 'because' (Traugott and König 1991: 197). Finnish *kun* 'when', 'while', 'as', 'since', 'because' (Traugott and König 1991: 197). Estonian *paräst* 'after', 'because of'; *kuna* 'while', 'as', 'since', 'because' (Traugott and König 1991: 195). Romanian *din moment ce* 'from the moment', 'because', and so on (Traugott and König 1991: 195).

For a special instance of this path of grammaticalization, see *SINCE > CAUSE*. This appears to be an instance of a widespread process whereby spatial and temporal markers are grammaticalized in specific contexts to markers of "logical" grammatical relations such as adversative, causal, concern, concessive, and conditional relations; see, for example, *ALLATIVE*; *LOCATIVE*; *SINCE*; *TEMPORAL > CONCESSIVE*; *TEMPORAL > CONDITIONAL*; *UP*.

TEMPORAL > (3) CONCESSIVE

(Old English *while þe* ‘at the time that’ >) Middle English *while* ‘during’ > Modern English ‘although’ (Traugott and König 1991: 199–203). German *während* ‘while,’ temporal preposition, conjunction > concessive conjunction. Ex.

German

- (a) *Während er aß, las er Zeitung.*
 while he ate read he newspaper
 ‘While he was eating he read a newspaper.’
- (b) *Während es gestern noch regnete, scheint jetzt die Sonne.*
 while it yesterday still rained
 shines now the sun
 ‘While it was still raining yesterday, the sun is shining now.’

Baka *ʔe kè . . . ne* ‘while,’ marker of temporal clauses > *ʔe kè*, marker of concessive clauses. Ex.

Baka (Christa Kilian-Hatz, personal communication)

| | | | | |
|---------------|----------------|-------------|-----------|----------------|
| <i>na.ngé</i> | <i>bèlà</i> | <i>ʔa</i> | <i>à</i> | <i>mbèe</i> |
| POSS:3:SG | work | 3:SG:NAR | ASP | finish:PAST |
| <i>ʔe</i> | <i>kè namò</i> | <i>bèlà</i> | <i>ʔe</i> | <i>mbè só.</i> |
| while | POSS:2:SG | work | 3:SG | finish yet |

‘His work is finished, while yours is not yet.’

Bulgarian *dokato* ‘while,’ ‘at the same time,’ temporal marker > *dokato* ‘although,’ concessive clause marker. Ex.

Bulgarian

- (a) *Dokato ti gotviš, az*
 while you cook:2SG:PRES I
šte čistja banjata.
 FUT clean:1SG:PRES bathroom:DEF
 ‘While you are cooking, I’ll be cleaning the bathroom.’
- (b) *Dokato namiram poezijata mu za*
 while find:1SG:PRES poetry:DEF his for
interesna, romanite mu mi
 interesting novels:DEF his me
xaresvat mnogo poveče.
 like:3:PL:PRES much more
 ‘Although I find his poetry interesting, I like his novels much better.’

The following example from Seychelles CF may also belong here, although the marker concerned, *dâ* ‘in,’ may also refer to locative rather than to temporal participants. Seychelles CF *dâ* ‘in,’ preposition > concessive marker. Ex.

Seychelles CF (Corne 1977: 148)

| | | | | | | |
|-----------|------------|---------------|----------------|----------|-----------|--------------|
| <i>dâ</i> | <i>tu</i> | <i>sô</i> | <i>fatige,</i> | <i>i</i> | <i>ti</i> | <i>bizuê</i> |
| (in | all | his | tire | 3:SG | PAST | must |
| <i>ed</i> | <i>pov</i> | <i>balen.</i> | | | | |
| help | poor | Whale) | | | | |

‘Even though he was tired, he had to help poor Whale.’

For a detailed discussion of the sources for concessive markers, see König 1985a, 1985b, 1988. This appears to be an instance of a widespread process whereby spatial and temporal markers are grammaticalized in specific contexts to markers of “logical” grammatical relations, such as adversative, causal, concern, concessive, and conditional relations; see, for example, under ALLATIVE; LOCATIVE; SINCE; TEMPORAL > CAUSE, TEMPORAL > CONDITIONAL, UP.

TEMPORAL > (4) CONDITIONAL

Hopper and Traugott (1993: 179) observe that one source of conditional connectives consists of “temporals expressing duration, or temporals that are ambiguous between duration and punctuality,” and they give the following examples:⁶⁹ Hittite *mān* ‘when’, ‘if’, ‘potential’; Tagalog (*ka*)*pag(ka)*, *kung* ‘if’, ‘then’, ‘while’; Indonesian *djika* ‘if’, ‘when’; *kalau* ‘if’, ‘when’, ‘as for’. Karok = *aha.k* ‘when’ > = *aha.k* ‘if’ (Bright 1957: 126). Hollenbach (1995: 186) argues that in some Mixtec languages, the noun *nú* ‘face’ has given rise to temporal markers (‘when’, ‘whenever’) (e.g., in Yosondúa), which have further developed into markers of conditional protasis (e.g., in Diuxi-Tilantongo). See also Haiman 1985b and Traugott 1985b.

This appears to be an instance of a widespread process whereby spatial and temporal markers are grammaticalized in specific contexts to markers of “logical” grammatical relations, such as adversative, causal, concern, concessive, and conditional relations; see, for example, ALLATIVE; LOCATIVE; SINCE; TEMPORAL > CAUSE; TEMPORAL > CONCESSIVE; UP.

THEN > FUTURE

Bari (*e*)*dé* ‘then’, ‘afterward’, adverb > *dé*, future tense marker (Heine and Reh 1984: 120). Ex.

Bari (Spagnolo 1933: 105–6)

- (a) *dé* *nan* *kɔn* . . .
 then 1:SG do
 ‘I do . . . then’
- (b) *nan* *dé* *kɔn* . . .
 1:SG FUT do
 ‘I shall do . . .’

⁶⁹ They also cite the Swahili connective *i-ki-wa* (lit.: ‘if it is’) as an example, which we prefer to ignore since conditional protasis is already expressed by the marker *-ki-* ‘if’.

Lingala *ndé* ‘then’ > *ndé-*, future tense marker. Ex.

Lingala (van Everbroeck 1969: 68)

| | | | | | | | | |
|--------------------------------------|------------|-------------|-----------|--------------------------|------------|-------------|-----------|---------------|
| <i>ndé-</i> | <i>na-</i> | <i>sál-</i> | <i>í.</i> | <i>ndé-</i> | <i>to-</i> | <i>kε-í</i> | <i>na</i> | <i>ebale.</i> |
| (then-1:SG-work-PAST ⁷⁰) | | | | (then-1:PL-go-PAST | | | to | river) |
| ‘I’ll work.’ | | | | ‘We’ll go to the river.’ | | | | |

Tok Pisin PE *baimbai* ‘afterward’, ‘later’ (< English *by-and-by*) > future tense marker (Sankoff and Laberge 1974). While being a semantically plausible pathway of grammaticalization, this process appears to be far less common compared to other pathways leading to the rise of future tense markers; see especially COME TO; GO TO; WANT.

THERE > DEMONSTRATIVE

French *là* ‘there’, adverb > *-là* ‘that’, distal demonstrative. Ex.

French

- (a) *il* *est* *là.*
 he is there
 ‘he is there.’
- (b) *cet* *homme-là*
 this man- DISTAL
 ‘that man’

Baka *kò* ‘there’, distal adverb > distal demonstrative. Ex.

Baka (Christa Kilian-Hatz, personal communication)

- (a) *wósòlò* *kò* *kò!*
 stand:up only there
 ‘Let’s stop there!’
- (b) *ma* *nyì* *bo* *kò* *ode.*
 1:SG know person that NEG
 ‘I don’t know that person.’

Hausa *cân* ‘there’, locative adverb > ‘that’, distal demonstrative. Ex.

Hausa (Cowan and Schuh 1976: 165)

- (a) *Audù* *yanà* *cân.*
 (Audu 3:M:be there)
 ‘Audu is over there.’
- (b) *dabbōbin* *cân*
 (animals that)
 ‘those animals (over there)’

⁷⁰ Very likely, the PAST marker *-í* in both of these examples has a function other than past tense.

While the directionality of this grammaticalization appears to be well established (see also HERE), there are examples that can be interpreted as suggestive of an opposite directionality; more research is required on this issue. Note that there is a view according to which demonstratives are diachronically, so to speak, “semantic primitives”; that is, they may give rise to various kinds of grammatical markers, while they themselves cannot be historically derived from other entities like lexical items (Plank 1979; Diessel 1999b: 150–2).

‘They’ see PERS-PRON, THIRD PLURAL

THING > (1) COMPLEMENTIZER

The Japanese nominalizer/complementizer *koto* has the etymological meaning ‘thing’ (Lehmann 1982: 65). Ex.

Japanese (Kuno 1973; quoted from Lehmann 1982: 65)

| | | | | |
|-----------------|-------------|--------------|------------|-------------|
| <i>Ano</i> | <i>hito</i> | <i>ga/no</i> | <i>hon</i> | <i>o</i> |
| that | person | NOM/GEN | book | ACC |
| <i>kai-</i> | <i>ta</i> | <i>koto</i> | <i>ga</i> | <i>yoku</i> |
| write- | PART | NOMIN | NOM | well |
| <i>sirarete</i> | <i>iru.</i> | | | |
| known | is | | | |

‘That that person has written a book is well known.’

Ik *kɔɔɔáa* ‘thing, matter’, noun > ‘that’, complementizer.⁷¹ Ex.

Ik (König 1999: 324–6)

| | | | | |
|------------|---------------|------------|----------|---------------|
| <i>ńtá</i> | <i>ye-</i> | <i>í-</i> | <i>í</i> | <i>kɔɔɔá-</i> |
| NEG | know- | 1:SG- | NEG | what- |
| <i>a</i> | <i>itiyá-</i> | <i>id-</i> | <i>a</i> | |
| NOM | do- | 2:SG- | <i>a</i> | |

‘I don’t know what you do.’

This appears to be an instance of a more general process whereby certain generic nouns serving as nominal complements are grammaticalized to markers of complement clauses. In many languages, this process has not proceeded beyond an incipient stage where it remains controversial whether, or to what extent, the relevant noun constitutes a noun or a clause subordinator; see König 1999 for a discussion. See also MATTER; PLACE.

THING > (2) INDEFINITE PRONOUN

Nahuatl *itlaa* ‘thing’ > *tlaa* ‘something’, indefinite pronoun (Lehmann 1982: 51). Swahili *kitu* ‘thing’, noun > ‘something’, ‘anything’, when used in object function. Ex.

⁷¹ Since Ik nouns retain their case inflections even when grammaticalized to complementizers, this language has several case-inflected clause subordinators (see König 1999).

Swahili

si- on- i ki- tu.
 NEG:1:SG-SEE-NEG C7-thing
 'I don't see anything.'

Yoruba *ohun kan* ('thing one') > *nkan* 'something' (Heine and Reh 1984: 272).
 Albanian *gjë* 'thing' > indefinite pronoun. Ex.

Albanian (Buchholz et al. 1993: 173)

a ke *gjë për të thënë?*
 'Do you have something to say?'

Turkish *şey* 'thing', noun > *bir şey* ('one thing') 'something', indefinite pronoun
 (Lewis [1967] 1985: 54, 77).

See also Lehmann 1982: 51–2; Heine and Reh 1984: 272; Haspelmath 1997a: 182. This grammaticalization appears to be an instance of a more general process whereby generic nouns give rise to pronominal categories; compare MAN; PEOPLE; PERSON; PLACE.

THING > (3) A-POSSESSIVE⁷²

Thai *khǎwŋ* 'thing', 'object' > genitive marker. Ex.

Thai (Matisoff 1991: 391)

- (a) *paj* *sýy* *khǎwŋ*
 'go buy things'
 (b) *mia* *khǎwŋ* *phǎm*
 wife GEN 1:SG
 'my wife'

Khmer *rəbɔh* 'thing' > genitive marker. Ex.

Khmer (Matisoff 1991: 391)

- (a) *rəbɔh* *nuh* *kee* *haw* *thaa* *kmaw-day*.
 thing DEM 3:SG call QUOT pencil
 'That thing is called a pencil.'
 (b) *puəq-maaq* *touc* *rəbɔh* *kñom* *píi* *neeq*
 friend little GEN 1:SG two CLASS
 nih
 DEM
 'these two little friends of mine'

In Japanese, the construction [possessor *no* possessee] is said to go back to a construction [possessor's thing, possessee] (Lehmann 1982: 110). Proto-Central Khoisan **ti* 'thing' > Kxoe (*di* 'property' >) *di* 'of', marker of alienable posses-

⁷² A-POSSESSIVE stands for attributive possession, expressed, for example, in English by either of or 's (see Heine 1997a).

sion (Bernd Heine, personal notes). More research is required on the exact nature and the genetic and areal distribution of this process.

THREE (NUMERAL) > TRIAL, PLURAL

Ambrym *sɔl* 'three' > *-sɔl* trial, paucal⁷³ marker on personal pronouns and other word categories. Ex.

Ambrym (Paton 1971: 16, 24, 44–6)

- (a) *veɛn* *ŋa-* *sɔl*
 woman PART- TRI
 'three women'
- (b) *gam-* *sɔl*
 2:PL- TRI
 'you three'

!Xun *!áo* 'three', cardinal numeral (North !Xun) > (a) *-(!a)o*, plural marker on personal pronouns (West !Xun), *-!a*, pronominal plural suffix (South !Xun); (b) *-!ao*, trial suffix on personal pronouns (West !Xun; Bernd Heine, personal notes). Gadsup-Agarabi *kamore* 'three' > *-kaamode*, trial number marker (on nouns) (Stolz 1992b: 643). More research is required on the genetic and areal distribution of this grammaticalization, which is an instance of a process whereby lower numerals may assume the function of grammatical number markers, typically on nouns; compare ONE; TWO.

THROW ('to throw (away)') > PERFECT

Diyari *wara-* 'throw' > perfect auxiliary. Ex.

Diyari (Austin 1981: 91)

| | | | |
|---------------|--------------|---------------|----------------|
| <i>karəri</i> | <i>ŋandu</i> | <i>tukudu</i> | <i>wayi-ŋa</i> |
| today:LOC | 3:SG:F:ERG | kangaroo | cook-PARTCP |

wara-yi.
 AUX- PRES
 'She cooked a kangaroo today.' (lit.: 'she threw cookingly')

Palaung *pət* 'throw away', 'finish' > perfect or completive marker (Bybee and Dahl 1989: 58; Bybee et al. 1994: 58). Korean *pelita* 'to throw away' > perfect (Bybee and Dahl 1989: 58). Fore *kai* ('cast aside' >) perfect (Bybee and Dahl 1989: 58). Japanese *shimau* 'put something away', 'finish' > perfect marker (Ono 1992; Ono and Suzuki 1992). Japanese *sutsu* (*utsu*, *tsu*) 'throw away' > completive marker (Watanabe 2000: 28). More research on the conceptual nature of this process is needed; it appears to be an instance of a more general grammaticalization whereby process verbs are grammaticalized to auxiliaries denot-

⁷³ It would seem that the Ambrym trial marker *-sɔl* expresses in the same way trial and paucal (i.e., 'few') number. Paton (1971: 24) observes that trial "may mean either *three* or a *few*, i.e., any reasonably small number."

ing tense or aspect functions; compare COME TO; DO; FINISH; GO TO; KEEP; LEAVE; TAKE.

PERFECT markers may further develop into PAST tense markers (Bybee et al. 1994: 81–7); compare Diyari *wara* 'throw' > auxiliary encoding immediate past time (Austin 1981: 91). See PERFECT > PAST.

TIME > TEMPORAL

Japanese *toki* 'time' > 'when', temporal adverbial subordinator. Ex.

Japanese (Bisang 1998a: 647)

| | | | | |
|---------------------|--------------|-------------|----------|-------------|
| <i>Tori</i> | <i>ga/no</i> | <i>tob-</i> | <i>u</i> | <i>toki</i> |
| bird | SUBJ/GEN | fly- | PRES | time |
| 'when a bird flies' | | | | |

Classical Newari *belas* 'time' > temporal subordinator (Genetti 1991). !Xun (western dialect) *n!an'a* 'time', noun > 'while', temporal conjunction (Heikkinen 1987: 41). Turkish *zaman* 'time' serves to construct temporal subordinate clauses. Ex.

Turkish (anonymous reader; Lewis [1967] 1985: 185)

| | | | | |
|-----------------------------------|-----------|---------------|----------------|--------------|
| <i>Türkiyede calistigim zaman</i> | | | | |
| <i>Türkiye-</i> | <i>de</i> | <i>calis-</i> | <i>tik- im</i> | <i>zaman</i> |
| Turkey- | LOC | work- | PART-1:SG | time |
| 'when I worked in Turkey' | | | | |

Kupto *sàrti* 'time', noun > 'when', conjunction (Leger 1991: 22). Kwami *lókòshì* 'time', noun (loanword from Hausa) > 'when', conjunction (Leger 1992: 27). Early Biblical Hebrew **"d* 'time' > *"ad*, temporal preposition, clause subordinator 'until'. Ex.

Early Biblical Hebrew (Givón 1991b: 259)

| | | | | |
|---------------------------------|-----------------|-----------|----------------|---------------|
| <i>"ad</i> | <i>shuv-</i> | <i>xa</i> | <i>'el-ha-</i> | <i>'adama</i> |
| till | return:INF-your | | to-the-soil | |
| 'till you return to the ground' | | | | |

Kikuyu *hingo* (noun class 9/10) 'time', noun > 'until', temporal conjunction. Ex.

Kikuyu (Mathias Schladt, personal communication)

- | | | | | |
|---------------------------------|-------------------|--------------|------------|--------------|
| (a) <i>a-</i> | <i>ceragĩr-ũo</i> | <i>hingo</i> | <i>ci-</i> | <i>othe.</i> |
| 3:SG- | be:late | C10-time | C10- | all |
| 'He is always late.' | | | | |
| (b) <i>ikara</i> | <i>na</i> | <i>rũ-</i> | <i>hiũ</i> | <i>rũ-</i> |
| IMP:stay | with | C14- | knife | C14- |
| <i>rũ</i> | <i>o</i> | <i>hingo</i> | <i>ng-</i> | <i>oka.</i> |
| this | exactly | time | 1:SG- | come |
| 'Keep this knife until I come.' | | | | |

Tamil *pootu* ‘time’, relational noun > noun functioning as a temporal clause marker. Ex.

Tamil (T. Lehmann 1989: 341)

| | | | |
|----------------|-------------------|------------------|----------------|
| <i>kumar</i> | <i>viit- ukku</i> | <i>va- nt- a</i> | |
| Kumar | house-DAT | COME-PAST-ADJV | |
| <i>pootu</i> | <i>elloorum</i> | <i>tuuñk-i-k</i> | <i>koñ- tu</i> |
| time | everyone | sleep- PARTCP | hold-PARTCP |
| <i>iru-nt-</i> | <i>aarkal.</i> | | |
| be-PAST-3:PL | | | |

‘At the time at which Kumar came home, everyone was sleeping.’

This is an instance of a process whereby a noun, on account of some salient semantic property, gives rise to a grammatical marker highlighting that property; see, for example, BACK; EARTH; HOME; SKY.

TOMORROW > (1) FUTURE

Neyo *kεεε* ‘tomorrow’ > *ε*, future tense marker. Ex.

Neyo (Marchese 1984: 206–7, 1986: 257)

| | | | | |
|---------------|-----------|-------------|-------------|-----------|
| <i>é</i> | <i>yi</i> | <i>ε</i> | <i>saaa</i> | <i>nà</i> |
| 1:SG | POT | FUT | also | your |
| <i>ʃɔ̃ʃoɔ</i> | <i>pi</i> | <i>wée.</i> | | |
| CORN:DEF | fix | INTJ | | |

‘Later (in the day), I will cook your corn.’

Cedepo *kà* ‘tomorrow’ > tense marker. Tepo *ηàηà* ‘tomorrow’ > *ηà*, tense marker (Marchese 1986: 256). Bakwé *sremagbàpek* ‘tomorrow’ > *pe*, tense marker (Marchese 1986: 257). Mandinka *sina* ‘tomorrow’ (*si* ‘sun’, *na* ‘come’) > *si*, future tense marker (Claudi 1994: 198). While being a semantically plausible pathway of grammaticalization, this process appears to be far less common compared to other pathways leading to the rise of future tense markers; see especially COME TO; GO TO; WANT.

TOMORROW > (2) NEXT

Hausa *gòbe* ‘tomorrow’ + temporal nouns > ‘next’, ‘following’; for example, *watàn gòbe* ‘next month’ (Ma Newman 1990: 179, 281). Colloquial Swahili *kesho* ‘tomorrow’ + temporal nouns > ‘next’, ‘following’. Ex. *mwaka kesho* ‘next year’. More research is required on the exact nature and the genetic and areal distribution of this process.

TOP > UP

Kpelle *na* ‘top side’, noun > ‘on’, ‘over’, ‘above’, postposition (Westermann 1924: 12). Swahili *juu* ‘top’, relational noun > ‘above’, adverb; *juu ya* ‘top of’ > ‘on (top of)’, ‘above’, ‘over’, preposition. Colonial Quiché *vi* ‘top’ > ‘on top’, ‘over’, ‘above’, locative marker. Ex.

Colonial Quiché (Dürr 1988: 58–9)

| | | | | | |
|-----------------------------------|-------------|---------------------|-----------|--------------|-----------|
| <i>cate</i> | <i>puch</i> | <i>x-</i> | <i>e-</i> | <i>acan-</i> | <i>ic</i> |
| then | and | CPL-3:ABS-ascend-IS | | | |
| <i>ch- u-</i> | <i>vi</i> | <i>che.</i> | | | |
| LOC-3:SG:ERG-top | | tree | | | |
| 'And then they climbed the tree.' | | | | | |

Hausa *kân* 'top' > locative preposition 'on', 'over' (Cowan and Schuh 1976: 58).

We are dealing with another instance of a more general process whereby relational nouns (including nouns for body parts) give rise to relational (typically spatial or temporal) grammatical markers; compare **BOTTOM**; **PLACE**; **SIDE**.

TRACE ('trace', 'track') > (1) AFTER

Welsh *ôl* 'trace', 'track', *ar ôl* 'on the track of' > *ar ôl*, adposition 'after'. Ex.

Welsh (William 1960: 35)

| | | |
|-------------|-----------|-----------|
| <i>ar</i> | <i>dy</i> | <i>ôl</i> |
| (PREP | 2:SG:POSS | track) |
| 'after you' | | |

Basque *atz* 'trace', 'track', 'footprint' has given rise to the postposition *atzean* 'behind'. Ex.

Basque (anonymous reader)

| | | | | |
|--------------------------|------------|-------------|--------------|-------------------------|
| <i>etxe(aren) atzean</i> | | | | |
| <i>etxe-</i> | <i>(a-</i> | <i>ren)</i> | <i>atze-</i> | <i>an</i> ⁷⁴ |
| house-(ART-GEN) | behind- | LOC | | |
| 'behind the house' | | | | |

Common Slavic **slědŭ* 'trace' > Common Slavic **poslědi* 'afterward' > Russian *posle* 'after', Croatian *poslije* 'after', Bulgarian *sled* 'after' (Haspelmath 1997b: 64). Finnish *jälki* 'trace', 'track' > *jälkeen* 'after' (Haspelmath 1997b: 64). Latvian *pēdis*, instrumental plural of *pēds* 'trace, i.e., in the traces (of)' > *pēc* 'after' (Haspelmath 1997b: 65–6). For more details, see Haspelmath (1997b: 65–6).

We are dealing with another instance of a more general process whereby relational nouns (including nouns for body parts) give rise to relational (typically spatial or temporal) grammatical markers; compare **BOTTOM**; **PLACE**; **SIDE**.

TRACE ('trace', 'track') > (2) BEHIND

Kono *gbà* 'trace', *gbá-à* 'at/in the trace' > *gbáà*, locative adverb, postposition 'back', 'backward', 'behind'. Ex.

⁷⁴ The vowel *e* following *atz* is required for phonological reasons; the item is now analyzed as *atze* 'space behind' + *-an* locative (anonymous reader).

Kono (Donald A. Lessau, personal communication)

- (a) *ɲàngùmá* *gbà*
 cat trace
 ‘trace of a cat’
- (b) *yéé* *í* *gbáà!*
 return 2:SG backward
 ‘Go back!’

Bambara *nò* ‘trace (of an animal)’ + *fɛ* ‘at’ > *nò fɛ* ‘behind (a line of people)’.
 Ex.

Bambara (Ebermann 1986: 119, 224)

- (a) *sogo* *nò* *filè!*
 (animal trace see)
 ‘Look, the trace of the animal!’
- (b) *í* *ká* *í* *bíla* *bèè* *nò* *fɛ*
 ‘stand behind’ (lit.: ‘to put/place oneself in the trace of all’)

This appears to be another instance of a more general process whereby relational nouns (including nouns for body parts) give rise to relational (typically spatial or temporal) grammatical markers; compare **BOTTOM**; **PLACE**; **SIDE**.

TREE > CLASSIFIER

Akatek *te* ‘tree’, noun > classificatory particle (Zavala 2000: 134). Vietnamese *cây* ‘tree’, ‘plant’ > classifier for stick-shaped or plantlike objects (Löbel 1996: 172; Bisang 1999: 138, 169). Kilivila *bwa* ‘tree’ > *bwa*, classificatory particle for trees and wooden things (Senft 1996: 20, 173). Kilivila *kai* ‘tree’, ‘wood’ > *ke*, general classifier (unmarked form for inanimates), classificatory particle for wooden things and rigid, long objects (Senft 1996: 27, 174, 352). Ex.

Kilivila (Senft 1996: 20)

| | | | | | |
|-------------------------|------------|-----------|-------------|-------------|--------------|
| <i>ma-</i> | <i>ke-</i> | <i>na</i> | <i>nuya</i> | <i>bwa-</i> | <i>veaka</i> |
| this- | wooden- | this | coconut | tree- | big |
| ‘this big coconut tree’ | | | | | |

Chinese *shù* ‘tree’ > classifier for trees, plants (Bisang 1999: 133). Chinese *gè* ‘(bamboo) tree’⁷⁵ > *ge* general classifier (Bisang 1999: 164). Ex.

Chinese (Bisang 1999: 132)

| | | |
|-------------------------------|-----------|-----------------|
| <i>sān</i> | <i>ge</i> | <i>jiàoshòu</i> |
| three | CL | professor |
| ‘three professors’ (unmarked) | | |

Concerning the rise and development of classifiers in Chinese, see Peyraube 1998. Note that nouns for ‘tree’ have recurrently been grammaticalized into classificatory particles in both Kilivila and Chinese; that is, more than one lexical

⁷⁵ According to Peyraube (1998: 56), the lexical meaning of *ge* is ‘bamboo trunk’.

West !Xun (Heikkinen 1987: 11, 91)

ì- tsa túih!
 (2:PL-DU rise)
 ‘Rise you two!’

This grammaticalization path is common in Papuan languages.⁷⁶ Seychelles CF *de* ‘two’ > dual marker in certain contexts involving paired objects. Ex.

Seychelles CF (Corne 1977: 21)

mô de lipie
 (my two foot)
 ‘my feet’

This is an instance of a more general process whereby lower numerals are pressed into service to function as number markers, typically on nouns; compare ONE; THREE. Still, more research on the areal and genetic distribution of this process is required, as well as on its conceptual nature. See also TWO > NP-AND; DUAL > NP-AND.

TWO (NUMERAL) > (2) NP-AND

Aranda *tara* ‘two’ > marker of noun phrase coordination. Ex.

Aranda (Stassen 2000; quoted from Strehlow 1944: 208)

Ara aranga tara
 red:kangaroo euro two
 ‘the red kangaroo and the euro’

Aranda *therre* ‘two’, numeral > ‘and’, NP-coordinator conjoining names of two people who form a common couple, such as husband and wife (Wilkins 1989: 371). Ex.

Aranda (Wilkins 1989: 371)

Ayenge lhe-ke Sandy therre-nge Wendy therre-nge.
 ‘I went with Sandy and Wendy.’ (where Sandy and Wendy are sisters)

Alyawarra *athirra* ‘two’, numeral > *-athirra*, dual number marker > sociative marker ‘with’, ‘and’ (Stolz 1992b: 639–40). Vai *féra* ‘two’, numeral > ‘with’, ‘and’, particle conjoining noun phrases. Ex.

Vai (Koelle [1854] 1968: 27, 39; Donald A. Lessau, personal communication)

- (a) *tām féra*
 ten two
 ‘twelve’
- (b) *wu féra wu bɔ̀nu*
 2:PL with 2:PL:POSS friends
 ‘ye and your friends’

⁷⁶ We owe this information to an anonymous reader of an earlier version of this work, who also suggested that the Gothic dual marker *-t* goes back to the numeral ‘two’.

West !Xun *tsa* ‘two’, cardinal numeral > *sá*, particle conjoining noun phrases.
Ex.

West !Xun (Heikkinen 1987: 69)

| | |
|-------------------|---------------|
| <i>sá</i> | <i>d̥ǎhmà</i> |
| the:two | wife |
| ‘he and his wife’ | |

Seychelles CF *de* ‘two’, cardinal numeral > marker conjoining two participants in certain contexts. Ex.

Seychelles CF (Corne 1977: 21)

| | | | | | |
|-----------------------------|-----------|-----------------|-----------|------------|-------------|
| <i>nu</i> | <i>de</i> | <i>Gabriel,</i> | <i>nu</i> | <i>ava</i> | <i>ale.</i> |
| (we | two | Gabrielle | we | FUT | go) |
| ‘Gabrielle and I shall go.’ | | | | | |

In Kxoe, it seems that it was the third person dual suffix *-tcà*, rather than the numeral for ‘two’, which has given rise to NP-AND involving two participants.
Ex.

Kxoe (Treis 2000a: 105)

- (a) *á- tcà*
DEM-3:M:DU
‘they’ (two male referents)
- (b) *xáò- tcà /'é- tcà*
hippopotamus-3:M:DU fire-3:M:DU
‘the hippo and the fire’

Note that numerals for ‘two’ appear to constitute the main, if not the only, source for dual markers (see TWO > DUAL); note further that the Kxoe dual marker *-tcà* appears to be etymologically related to the numeral *tsā* or *tsa* ‘two’ in the neighboring !Xun (Ju|’hoansi) language⁷⁷ (Heikkinen 1987; Dickens 1992). See also DUAL > NP-AND. It remains unclear whether we are dealing with a straight evolution from numeral to marker of NP-coordination or whether there is an intermediate stage of a dual category; that is, whether the most common pathway is not TWO > DUAL > NP-AND.

U

UNTIL (‘until’, ‘up to’) > EQUATIVE COMPARATIVE

Dogon *bà*: ‘until’, ‘up to’, locative, temporal adposition > equative comparative marker. Ex.

⁷⁷ Kxoe and !Xun are presumably genetically related. What appears to be more relevant to the present case is that these two Khoisan languages exhibit a close areal relationship.

Dogon (Calame-Griaule 1968: 28–9)

vò mù bà: yèse

‘He is as rich as I.’ (lit.: ‘He owns up to me’)

Lezgian *q’wan* ‘up to’, ‘as far as’, ‘until’, locative/temporal postposition > ‘as much/many as’, marker of quantitative comparison (Haspelmath 1993: 439f). For a detailed description of how the equative is expressed in the languages of Europe, see Haspelmath and Buchholz 1998. More research is required on the genetic distribution of this process.

UP > (1) ADDITIVE

Kono *kùmà* ‘over’, ‘on top’, adverb, postposition > numeral linker ‘and’ (joining tens with digits). Ex.

Kono (Donald A. Lessau, personal communication)

| | | | | | |
|----------------------------|-------|-----|------|-------|----|
| àà | dén | tân | kùmà | dúù- | nù |
| 3:SG:POSS | child | ten | and | five- | PL |
| ‘his/her fifteen children’ | | | | | |

Romanian *cíncisprezece* ‘fifteen’ (= *cinci-spre-zece* ‘five-over-ten’) (Popinceanu 1962: 32). See Heine 1997b: 18–34.

More research is required on the genetic and areal distribution of this process.

UP > (2) COMPARATIVE

Chukchee *-ik* ‘on’, locative suffix > marker of standard noun phrases in comparative constructions. Ex.

Chukchee (Stassen 1985: 147)

| | | | | |
|-------------------------------|-----------|---------|-----------|------|
| Gamga- | qlá’ul-ik | qetvu- | ci- | ium. |
| all- | men- on | strong- | more-1:SG | |
| ‘I am stronger than all men.’ | | | | |

Naga *-ki* ‘on’, locative suffix > ‘than’, marker of standard noun phrases in comparative constructions. Ex.

Naga, Sino-Tibetan (Stassen 1985: 147)

| | | | | | |
|-------------------------------------|------|------|----|---------|-----|
| Themma | hau | lu | ki | vi- | we. |
| man | this | that | on | good-is | |
| ‘This man is better than that man.’ | | | | | |

Ubykh *-n* ‘on’, locative case suffix > ‘than’, marker of standard noun phrases in comparative constructions. Ex.

Ubykh (Stassen 1985: 147)

| | | | | | |
|---------------------------------------|------|------------|--------|-----------|-----------|
| Yi- | gune | wo- | gune-n | ca- | qasaqa-j. |
| this-tree | | that-tree- | on | more-big- | 3:SG |
| ‘This tree is taller than that tree.’ | | | | | |

Miwok *-y* 'on', locative suffix > 'than', marker of standard noun phrases in comparative constructions. Ex.

Miwok (Stassen 1985: 148)

| | | | |
|------------------|---------------------|--------------|--------------------|
| <i>Oš'akci-?</i> | <i>tunic'kci- ?</i> | <i>manik</i> | <i>nangakci-y.</i> |
| girl- NOM | small:one-NOM | more | boy- on |

'The girl is smaller than the boy.'

Salinan *ti* 'on', locative marker > 'than', marker of standard noun phrases in comparative constructions. Ex.

Salinan (Stassen 1985: 149)

| | | | | |
|-----------------|-----------|-------------|-----------|-------------|
| <i>Ragas-mo</i> | <i>in</i> | <i>luwa</i> | <i>ti</i> | <i>hek.</i> |
| surely-you | more | man | on | me |

'You are certainly more of a man than me.'

Mandinka *ma* 'on', locative postposition > 'than', marker of standard noun phrases in comparative constructions. Ex.

Mandinka (Stassen 1985: 149)

| | | | | |
|----------|-----------|------------|-----------|------------|
| <i>A</i> | <i>ka</i> | <i>gya</i> | <i>ni</i> | <i>ma.</i> |
| he | is | big | me | on |

'He is bigger than me.'

Tamazight *fell/foull* 'on', 'upon', preposition > 'than', marker of standard noun phrases in comparative constructions. Ex.

Tamazight (Stassen 1985: 149)

| | | | |
|-------------|-----------------|--------------|-----------|
| <i>Enta</i> | <i>ihengrin</i> | <i>foull</i> | <i>i.</i> |
| he | is:tall | upon | me |

'He is taller than me.'

Tamil *-il-* 'on', locative suffix > 'than', marker of standard noun phrases in comparative constructions. Ex.

Tamil (Stassen 1985: 151)

| | | |
|-------------------|-------------|-----------------|
| <i>At- il- um</i> | <i>ittu</i> | <i>cinnatu.</i> |
| that-on-PART | this | big |

'This is bigger than that.'

Mapuche *meu* 'on', 'to', locative marker > 'than', marker of standard noun phrases in comparative constructions. Ex.

Mapuche (Stassen 1985: 153)

| | | | | |
|---------------|------------|----------------|------------------|-------------|
| <i>Karlos</i> | <i>doi</i> | <i>fucha-i</i> | <i>Francesko</i> | <i>meu.</i> |
| Karlos | more | tall- 3:SG | FRANCESCO | on/to |

'Karlos is taller than Francesko.'

This is another instance of a process whereby spatial markers are grammaticalized to markers introducing the standard of comparison; compare **ABLATIVE; LOCATIVE**.

UP > (3) CONCERN

English *on*, locative preposition > 'about', concern marker. Ex.

English (anonymous reader)

- (a) *The book is on the table.*
 (b) *She was speaking on Chinese porcelain.*

German *über* 'over' > 'about', concern marker. Ex.

German

- (a) *Der Vogel fliegt über die Kirche.*
 the bird flies over the church
 'The bird is flying over the church.'
- (b) *Er spricht nicht gerne über seine Vergangenheit.*
 he speaks not with:pleasure over his
 past
 'He doesn't like to speak about his past.'

Spanish *sobre* 'on' > 'about'. Ex.

Spanish (anonymous reader)

- (a) *sobre la mesa*
 on the table
 'on the table'
- (b) *un libro sobre el euskera*
 a book on the Basque
 'a book about Basque'

French *sur* 'on', preposition > 'about', preposition. Ex.

French (anonymous reader)

- (a) *sur la table*
 on the table
 'on the table'
- (b) *une conférence sur la drogue*
 a conference on the drug
 'a lecture on drug addiction'

In the Guipuzcoan dialect of Basque, the common postposition *gain(e)an* (from *gain-(e)an* 'top'-LOC) has recently come to be used in vernacular speech as a concern marker. Ex.

Basque, Guipuzcoan dialect (anonymous reader)

- (a) *mendi* *gain-* *ean*
 mountain top- LOC
 'on top of the mountain'
- (b) *kimika* *gain-* *ean*
 mountain top- LOC
 'about chemistry'

Swahili *juu ya* 'above', 'on top of', 'up' > concern marker. Ex.

Swahili

- (a) *Ndege* *yu-ko* *juu ya* *nyumba.*
 bird CI-LOC above house
 'The bird is above the house.'
- (b) *A- na-* *kataa* *ku-sema* *juu ya*
 he-PRES- refuse to-speak on:top:of
ajali *yake.*
 accident his
 'He refuses to talk about his accident.'

See also GIVE; LOCATIVE. This appears to be an instance of a widespread process whereby spatial and temporal markers are grammaticalized in specific contexts to markers of "logical" grammatical relations, such as adversative, causal, concern, concessive, and conditional relations; see, for example, ALLATIVE; LOCATIVE; SINCE; TEMPORAL.

USE > HABITUAL

English *used to* > past habitual marker. Ex.

English

- (a) *He used all the money.*
 (b) *He used to come on Tuesdays.*

Hagège (1993: 217) observes that verbal items denoting 'be used to' or 'get used to' tend to develop into markers for static or dynamic habituais. This grammaticalization appears to be an instance of a more general process whereby process verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare COME TO; DO; FINISH; GO TO; KEEP; LEAVE; TAKE; THROW.

V

VENITIVE > FUTURE

Iraqw *ni*, venitive marker ("hither marker") > near future marker (NFUT) having present relevance. Ex.

Iraqw (Mous 1993: 134–5)

- (a) *inós ni xa- xéer*
 3:SG VEN HAB-COME.3:F:SG
dí- r doo- ren-
 place:CONSTRUCT:CASE- F house- 1:PL:POSS-
ee.

BACKGROUND

‘She comes to our house.’

- (b) *atén ni da’- áan.*
 1:PL NFUT sing-1:PL
 ‘We are going to sing.’

Maa *-u(n)*, venitive (“motion hither”) derivative extension > *-u*, (inchoative marker >) future tense marker with verbs of state (Tucker and Mpaayei 1955: 141; König 1993: 294–316). While the evidence supporting this process comes from two different language phyla, the languages concerned may be areally related. More research is required on the genetic and areal distribution of this process.

W

WANT (PAST) > (1) AVERTIVE

Bulgarian *štjax* ‘want’ (PAST) > avertive auxiliary (Kuteva 1998). Ex.

Bulgarian (Kuteva 1998: 115)

- (a) *Ne štjax dori da go*
 not want:1:SG:PAST even to him
pogledna.
 take:a:look:at:1:SG:PRES
 ‘I didn’t even want to take a look at him.’
- (b) *Pomniš li, če lani*
 remember:2:SG:PRES Q that last:year
štjax da si izkärtja
 want:1:SG:PAST to REFL break:1:SG:PRES
edin zăb ot toja proklet oriz!
 one tooth from this damn rice
 ‘Remember, last year I nearly broke a tooth of mine because of that damn rice!’

Venda *tođa u* (wanted-PERF INF) ‘have wanted to’ > *tođou*, ‘almost’ marker. Ex.

Venda (Poulos 1990: 332; Heine 1997d: 5)

- (a) *Ndo tođa u mu rwa.*
 (I want:PERF INF him hit)
 ‘I wanted to hit him.’

- (b) *Ndo tōdōu mu rwa.*
 (I almost him hit)
 'I nearly hit him.'

Tswana *-batla* 'want', verb > 'nearly', 'almost' or 'on the point of but never quite doing' (Cole [1955] 1987: 292). Sotho *-batla* 'want', 'seek', 'desire', verb > auxiliary marking the avertive ('act almost'). Ex.

Southern Sotho (Doke and Mofokeng [1957] 1985: 247)

- (a) *Kē-ile ka-batla libuka tseō.*
 'I wanted those books.'
 (b) *Kē-ile ka-batla kē-ē-shōa*
 'I nearly died.'

Margi *àyi* 'want', verb > 'nearly'. Ex.

Margi (Hoffmann 1963: 219)

| | | | | | |
|---------------|-----------------------|------------|-----------|--------------|-----------|
| <i>kwálbá</i> | <i>ínkù</i> | <i>àyi</i> | <i>gà</i> | <i>táđú,</i> | <i>dí</i> |
| (ink | pot | wanted | to | fall, | then |
| <i>gà</i> | <i>dzùgwà kà'ùbá.</i> | | | | |
| 1:SG | caught) | | | | |

'The ink pot nearly fell, then I caught it.'

For more details, see Kuteva 1998. This grammaticalization is an instance of a more general process whereby verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare COME TO; DO; FINISH; GO TO; KEEP; LEAVE; TAKE; THROW.

WANT ('want', 'wish', 'desire') > (2) FUTURE

Old English *willan*, verb > *will*, future tense (Aijmer 1985). Latin *volere* 'want', verb > Romanian future marker. Ex.

Latin (Pinkster 1987: 195)

- (a) *volo cantare.*
 (want:1:SG sing:INF)
 'I want to sing.'

Romanian

- (b) *voi cînta.*
 (want:1:SG sing:INF)
 'I will sing.'

Modern Greek *thelô ina* 'I wish that' (older construction) > *tha*, future tense morpheme (Hopper and Traugott 1993: 24; see especially Tsangalidis 1999). Mandarin Chinese *yào* 'want' > future (Li and Thompson 1981: 175–6). Mabiha *ku-lembele* 'to want', verb > *-lembe-*, remote future marker. Ex.

Mabiha (Botne 1989: 170)

| | | | | | | | | |
|-------------------------|----------------|------------|--------------|----|-------------|---------------|------------|--------------|
| <i>tu-</i> | <i>lembela</i> | <i>ku-</i> | <i>tenda</i> | OR | <i>tu-</i> | <i>lembe-</i> | <i>ku-</i> | <i>tenda</i> |
| (1:PL-want | | INF-make) | | | (1:PL-want- | | INF-make) | |
| 'we will make' (remote) | | | | | | | | |

Swahili *-taka* 'want', 'desire', verb > *-ta-*, future marker. Ex.

Swahili

- (a) *a-* *taka* *ku- ja.*
 3:SG:PRES-want INF-come
 'She wants to come.'
- (b) *a- ta- ku- ja.*
 3:SG-FUT-INF-come
 'She will come.'

Omyene *-bela* 'desire', verb > *-be-*, future marker (Botne 1989: 173). Kuba *-bondela* 'want', 'ask for', verb > *-bondo-*, future marker (Botne 1989: 173). Luba *-saka* 'want', verb > *-sa-*, future marker (Botne 1989: 173). Kimbundu *-andala* 'want', 'wish', verb > *-anda-*, *-andɔ-*, or *-ɔndɔ-*, future marker. Ex.

Kimbundu (Botne 1989: 173)

| | | | |
|----------------|-------------|------------|--------------|
| <i>tu-</i> | <i>anda</i> | <i>ku-</i> | <i>banga</i> |
| (1:PL-FUT | | INF-make) | |
| 'we will make' | | | |

Bulgarian *šte* 'want' (3:SG:PRES), verb > future tense marker (invariable particle). Ex.

Bulgarian

- (a) *Ne* *te* *šte* *za* *bulka.*
 not you:ACC want:3:SG:PRES for bride
 'He does not want you as a bride.'
- (b) *Toj* *šte* *doide.*
 3:SG FUT come:3:SG:PRES
 'He will come.'

This process has been discussed in much detail by Bybee et al. (1991); see also Bybee et al. 1994; for a monographic treatment, see Tsangalidis 1999. The process is an instance of a more general process whereby verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare COME TO; DO; FINISH; GO TO; KEEP; LEAVE; TAKE; THROW. WANT-verbs exhibit a widespread overlap with (>) LOVE verbs.

WANT ('want', 'like', 'love', 'desire') > (3) PROXIMATIVE

// Ani *ka* 'want', verb > 'be about to', proximative auxiliary. Ex.

// Ani (Heine 1999a: 21)

- (a) *tsá ka- ra- hàn sê- kù- fiè*
 2:M:SG want-JUNC-PERF marry-REC-PASS
óó-xa. . . .
 tomorrow
 'You want to marry (your lady) tomorrow. . . .'
- (b) *á- ìn yì- má /q'ái-/xè ka- tè.*
 DEM-M:SG tree-M:SG fall- INT want-PRES
 'That tree is about to fall.'

Ewe *dí* 'want', verb > proximative marker. Ex.

Ewe (Ameka 1990: 145; Heine 1997d: 5)

- (a) *kofi dí bé ye- a kpó wò.*
 Kofi want that LOG- IRR see 2:SG
 'Kofi wants to see you.'
- (b) *tsi dí bé ye- a dza.*
 water want that LOG-IRR fall
 'It is about to rain.' (lit.: 'Water wants to fall')

Chamus, dialect of Maa (*k*)*e-yyéú* 's/he wants' > (*k*)*-eyyéú*, proximative marker. Ex.

Chamus, dialect of Maa (Heine 1992: 338–9)

- (a) *k-á- yyéú n-daâ.*
k-1:SG-want F-food
 'I want food.'
- (b) (*k*)*-eyyéú a- ók nánw kulè*
k- PROX 1:SG- drink I:NOM milk
 'I was about to drink milk.'

Chrau *co'nh* 'want to' > 'almost', 'about to' (non-negatable preverbal), particle. Ex.

Chrau (Matisoff 1991: 394)

- (a) *anh co'nh saq.*
 1:SG want:to go
 'I want to go.'
- (b) *anh co'nh chu't.*
 1:SG almost die
 'I am about to die.'

Hungarian *akar* 'want', 'wish', 'like', verb > proximative marker. Ex.

Hungarian (Halász 1973: 15)

- (a) *nem akar dolgoz-ni.*
 (not 3:SG:PRES:want work- INF)
 'He does not want to work.'

- (b) *a haz össze akar döl- ni.*
 (ART house together want collapse-INF)
 'The house is about to collapse.'

Persian *xastan* 'want' > *xastan* 'to be on the point of doing something', auxiliary. Ex.

Persian (Lambton 1979: 54)

- mixast bemirad.*
 want:3:SG:IMPERF die:3:SG:SUBJUNCT:PRES
 'He was about to die.'

Old English *willan* 'want' > *willan* 'be about to', auxiliary. Ex.

Old English (Anglo-Saxon Dictionary: 1227)

- Hit wolde dagian.*
 'The day was about to break.'

Thompson *-mémn*, desiderative suffix expressing wishes > *-mémn*, "impending event". Ex.

Thompson (Thompson and Thompson 1992: 107–8)

- (a) /x^wəʃ-t-mémn kn.
 'I want to go home'
 (b) /wux^wt-mémn.
 'It acts as though it is going to snow.'

For a more detailed treatment of this instance of grammaticalization, see Heine 1994b, 1997d and Kuteva 1998, forthc.a, forthc.b. This grammaticalization is an instance of a more general process whereby verbs are grammaticalized to auxiliaries denoting tense or aspect functions; compare COME TO; DO; FINISH; GO TO; KEEP; LEAVE; TAKE; THROW. See also LOVE; compare NEAR.

'Will' see WANT

'Wish' see WANT

WOMAN ('woman', 'wife') > (1) CLASSIFIER

Akatek *ix* or 'ix⁷⁸ 'woman', noun > 'ix, classificatory particle for human beings, saints, and mythological animals (Zavala 2000: 134). Ex.

Akatek (Zavala 2000: 121, 122)

- (a) *manaj 'ox- wan 'ix tu'.*
 not three- CLASS woman DISTAL
 'It is not the three women [that the boss said].'

⁷⁸ The writing of the noun for 'woman' is not consistent: both forms, *ix* and 'ix, do occur (cf. Zavala 2000: 121, 122).

- (b) 'eyta' 'ox- wan eb' 'ix 'ix
 EXIST:PAST three- CLASS HUM:PL CLASS woman
 'There were two women lying down.'⁷⁹

Kilivila *vivila*, *vivina* 'woman' > *na*, classificatory particle for persons of female gender, animals, stars, planets, moon, carvings in human likeness, corpses, spirits, dwarfs (Senft 1996: 174, 353). Ex.

Kilivila (Senft 1996: 22)

| | | | | | |
|--------------------|------------------|----------------|------------------|----------------|---------------|
| <i>o</i> | <i>da-</i> | <i>valu-</i> | <i>si</i> | <i>e-</i> | <i>sisu-</i> |
| in | 1:INCL- | village- | PL | 3- | live- |
| <i>si</i> | <i>tommota</i> | <i>to-</i> | | <i>paisewa</i> | |
| PL | people | human:beings- | | work | |
| <i>vivila</i> | <i>na- salau</i> | | <i>tauwau</i> | <i>to-</i> | |
| woman | female-busy | | men | male- | |
| <i>bugubagula</i> | | <i>tommota</i> | <i>gala</i> | <i>to-</i> | |
| work:in:the:garden | | people | not | human:beings- | |
| <i>dubakasala</i> | | <i>kena</i> | <i>kumwedona</i> | | |
| rude | | but | all | | |
| <i>e-</i> | <i>nukwali-</i> | <i>si</i> | <i>bubune-</i> | <i>si</i> | <i>bwena.</i> |
| 3- | know- | PL | manners- | their | good |

'In our village live people taking pleasure in their work. The women are busy, the men are good gardeners. The people are not rude, but all have good manners.'

Concerning the rise and development of classifiers in Chinese, see Peyraube 1998. This grammaticalization appears to be part of a more general process whereby certain nouns, on account of some specific semantic characteristic, are recruited as structural templates for a folk taxonomic classification of nominal concepts; see also **BRANCH**; **CHILD**; **MAN**; **PIECE**; **SONG**; **TREE**. More research is required on the genetic and areal distribution of this process.

WOMAN ('woman', 'wife') > (2) FEMALE

Nouns meaning 'woman' or 'wife' appear to be natural candidates for nominal modifiers referring to female participants and, in fact, in a number of languages nouns for 'woman' or 'wife' have given rise to closed-class items denoting 'female', encoded as adjectival or derivative markers. Ewe *nyɔnu* 'woman', noun > *-nyɔnu* 'female', derivative suffix of limited productivity. Ex.

Ewe (cf. Westermann 1907: 48–9)

| | |
|-----------|-----------------|
| <i>vi</i> | <i>vi-nyɔnu</i> |
| 'child' | 'daughter' |

⁷⁹ There is probably a mistake in this line: Rather than *two*, the numeral should be *three*.

The Proto-Bantu nominal root **-kadj* includes ‘woman’, ‘wife’, and ‘female’ among its meanings, and this root has given rise to a derivative suffix ‘female’ in a number of eastern and southern Bantu languages (see, e.g., Güldemann 1999b). Proto-Bantu **-kadj* ‘woman’, ‘wife’, ‘female’ > Hunde *-katsi* ‘female’, derivative suffix.

Hunde (Mateene 1992: 121; quoted from Güldemann 1999b: 57)

| | | | | | |
|-----------------|-------------|--------------|------------|-------------|--------------|
| <i>mu-</i> | <i>twá-</i> | <i>katsi</i> | <i>im-</i> | <i>bwá-</i> | <i>katsi</i> |
| C1- | pygmy- | FEM | C9- | dog- | FEM |
| ‘a pygmy woman’ | | | ‘bitch’ | | |

More research is required on the areal and genetic distribution of this pathway, which is an instance of a more general process whereby certain nouns, on account of some specific semantic characteristic, develop into grammatical markers highlighting this characteristic; see also **CHILD**; **MAN**; **MOTHER**.

Y

YESTERDAY > PAST

Baka *ngili* ‘yesterday’, adverb > *-ngi*, verbal suffix of near past. Ex.

Baka (Brisson and Boursier 1979: 342)

| | | | | |
|--|-----------|--------------|------------|---------------|
| <i>pàmè</i> | <i>ʔé</i> | <i>wòtò-</i> | <i>ngi</i> | <i>ngili.</i> |
| wild:boar | 3:SG | pass- | PAST | yesterday |
| ‘A wild boar passed (here) yesterday.’ | | | | |

Nyabo *pàmā* ‘yesterday’ > *mā*, past tense marker. Borobo *trótu* ‘yesterday’ > *to*, past tense marker. Dyabo *pama* ‘yesterday’ > *ma*, past tense marker. Cedepo *tómótè* ‘yesterday’ > *tè*, past tense marker. Tepo *wtwtw* ‘yesterday’ > *tw*, past tense marker. Grebo *tèdódó* ‘yesterday’ > *dó* past tense marker (all examples from Marchese 1986: 256). River Cess Bassa *pàniwá* ‘yesterday’ (adverb) > *wà*, past tense enclitic. Ex.

River Cess Bassa (Marchese 1984: 206, 1986: 256)

| | | | | |
|---------------------------------------|------------|-----------|--------------|-----------------|
| <i>ɔ</i> | <i>kpò</i> | <i>wà</i> | <i>smi-ò</i> | <i>seèèè.</i> |
| he | catch | PAST | fish-DEF | a:long:time:ago |
| ‘He caught the fish a long time ago.’ | | | | |

Grand Bassa *mabàa* ‘yesterday’ > *maá*, past tense marker (Marchese 1986: 256). Gbuu *pooplakana* ‘yesterday’ > *ka*, past tense marker (Marchese 1986: 257). Neyo *kaalaa* ‘yesterday’ > *la*, past tense marker. Ex.

Neyo (Marchese 1984: 206–7; 1986: 257)

| | | | | |
|-------------------------------|---------------|------------|-----------|-------------|
| <i>ma</i> | <i>ḃóylée</i> | <i>blá</i> | <i>la</i> | <i>móɔ.</i> |
| but | foot | kill | PAST | me |
| ‘But my foot was killing me.’ | | | | |

Kipsikiis *koon* 'yesterday' > *kɔɔ-/koo-* (hesternal), past tense marker (Dimmendaal 1995: 34).

Conceivably, this is a conceptually plausible but possibly areally induced pathway of grammaticalization, since it appears to be confined to Africa. More research is required on the exact nature and the genetic and areal distribution of this process.

APPENDIX 1

Source–Target List

| <i>Source</i> | | <i>Target</i> |
|---------------|---|---|
| ABILITY | > | (1) PERMISSIVE (2) POSSIBILITY |
| ABLATIVE | > | (1) AGENT (2) COMPARATIVE (3) MATERIAL (4) PARTITIVE (5) PAST, NEAR (6) A-POSSESSIVE (7) SINCE (TEMPORAL) |
| ALL | > | (1) PLURAL (2) SUPERLATIVE |
| ALLATIVE | > | (1) COMPLEMENTIZER (2) DATIVE (3) INFINITIVE (4) PATIENT (5) PURPOSE (6) TEMPORAL (7) UNTIL (TEMPORAL) |
| ALONE | > | ONLY |
| ALSO | > | NP-AND |
| VP-AND | > | SUBORDINATOR |
| ANTICAUSATIVE | > | PASSIVE |
| AREA | > | LOCATIVE |
| ARRIVE | > | (1) ABILITY (2) ALLATIVE (3) SUCCEED (4) UNTIL (TEMPORAL) |
| BACK | > | (1) AFTER (2) BEHIND (3) CAUSE |

| <i>Source</i> | <i>Target</i> |
|-------------------------|-------------------------------------|
| | (4) EARLIER |
| | (5) THEN |
| | (6) UP (SPATIAL) |
| BAD | > INTENSIFIER |
| BEAT | > PRO-VERB |
| BEGIN | > (1) FIRST (NUMERAL) |
| | > (2) FIRST (TEMPORAL) |
| | (3) INCEPTIVE |
| BEHIND (SPATIAL) | > AFTER |
| BELLY | > (1) IN (SPATIAL) |
| | (2) IN (TEMPORAL) |
| BENEFACTIVE | > (1) DATIVE |
| | (2) A-POSSESSIVE |
| | (3) PURPOSE |
| BODY | > (1) INTENSIVE-REFL |
| | > (2) MIDDLE |
| | (3) RECIPROCAL |
| | (4) REFLEXIVE |
| BOTTOM | > DOWN (SPATIAL) |
| BOUNDARY | > UNTIL |
| BOWELS | > IN (SPATIAL) |
| BRANCH | > CLASSIFIER |
| BREAST | > FRONT |
| BUTTOCKS | > (1) BEHIND |
| | (2) DOWN |
| CENTER | > (1) BETWEEN |
| | (2) IN (SPATIAL) |
| CHANGE-OF-STATE | > (1) COPULA |
| | (2) FUTURE |
| CHILD | > (1) CLASSIFIER |
| | (2) DIMINUTIVE |
| | (3) PARTITIVE |
| CHILDREN | > PLURAL |
| CIRCLE | > AROUND (SPATIAL) |
| COME | > (1) CONSECUTIVE |
| | (2) CONTINUOUS |
| | (3) HORTATIVE |
| | (4) VENITIVE |
| COME FROM | > (1) ABLATIVE (LOCATIVE, TEMPORAL) |
| | (2) NEAR PAST |
| COME TO | > (1) BENEFACTIVE |
| | (2) CHANGE-OF-STATE |

| <i>Source</i> | <i>Target</i> |
|-----------------------------|----------------------|
| | (3) FUTURE |
| | (4) PROXIMATIVE |
| | (5) PURPOSE |
| COMITATIVE | > (1) AGENT |
| | (2) NP-AND |
| | (3) S-AND |
| | (4) CONTINUOUS |
| | (5) EXIST |
| | (6) INSTRUMENT |
| | (7) MANNER |
| | (8) PASSIVE |
| | (9) H-POSSESSIVE |
| | (10) TEMPORAL |
| COMPARATIVE (+ NEGATION) | > NO LONGER |
| COMPLEMENTIZER | > PURPOSE |
| COMRADE | > (1) COMITATIVE |
| | (2) RECIPROCAL |
| CONDITIONAL | > CONCESSIVE |
| CONTINUOUS | > (1) HABITUAL |
| | (2) PRESENT |
| COPULA | > (1) AVERTIVE |
| | (2) CONDITIONAL |
| | (3) CONSECUTIVE |
| | (4) FOCUS |
| | (5) FUTURE |
| | (6) OBLIGATION |
| COPULA, LOCATIVE | > (1) CONTINUOUS |
| | (2) COPULA, EQUATIVE |
| | (3) EXIST |
| | (4) LOCATIVE |
| | (5) H-POSSESSIVE |
| CROSS | > ACROSS |
| DATIVE | > (1) COMPARATIVE |
| | (2) PATIENT |
| | (3) A-POSSESSIVE |
| | (4) B-POSSESSIVE |
| | (5) H-POSSESSIVE |
| DEFINITE | > SUPERLATIVE |
| DEMONSTRATIVE | > (1) COMPLEMENTIZER |
| | (2) CONJUNCTION |
| | (3) COPULA |

| <i>Source</i> | <i>Target</i> |
|-------------------------|--------------------------|
| | (4) DEFINITE |
| | (5) FOCUS |
| | (6) PERS-PRON, THIRD |
| | (7) RELATIVE |
| | (8) SUBORDINATOR |
| DEONTIC MODALITY | > (1) EPISTEMIC MODALITY |
| | (2) FUTURE |
| DESCEND | > DOWN |
| DO | > (1) CAUSATIVE |
| | (2) CONTINUOUS |
| | (3) EMPHASIS |
| | (4) OBLIGATION |
| | (5) PRO-VERB |
| DUAL | > NP-AND |
| EAR | > LOCATIVE |
| EARTH | > DOWN |
| EAT | > PASSIVE |
| EDGE | > LOCATIVE |
| ENVIRONS | > AROUND (SPATIAL) |
| EXCEED | > (1) COMPARATIVE |
| | (2) ELATIVE |
| EXIST | > (1) CONTINUOUS |
| | (2) H-POSSESSIVE |
| EYE | > (1) BEFORE |
| | (2) FRONT |
| FACE | > (1) FRONT |
| | (2) UP |
| FAIL | > AVERTIVE |
| FALL | > (1) DOWN |
| | (2) PASSIVE |
| FATHER | > MALE |
| FIELD | > OUT |
| FINISH | > (1) AFTER |
| | > (2) ALREADY |
| | (3) COMPLETIVE |
| | (4) CONSECUTIVE |
| | (5) PERFECTIVE |
| FIRST (TEMPORAL) | > BEFORE |
| FLANK | > SIDE (SPATIAL) |
| FOLLOW | > (1) ACCORDING TO |
| | (2) BEHIND |
| | (3) COMITATIVE |

| <i>Source</i> | | <i>Target</i> |
|------------------|---|---|
| FOOT | > | DOWN |
| FOOTPRINT | > | BEHIND |
| FOREHEAD | > | FRONT |
| FRONT | > | (1) BEFORE (2) LATER |
| FUTURE | > | EPISTEMIC MODALITY |
| GET | > | (1) ABILITY (2) CHANGE-OF-STATE (3) OBLIGATION (4) PASSIVE (5) PAST (6) PERMISSIVE (7) H-POSSESSIVE (8) POSSIBILITY (9) SUCCEED |
| GIVE | > | (1) BENEFACTIVE (2) CAUSATIVE (3) CONCERN (4) DATIVE (5) PURPOSE |
| GO | > | (1) ANDATIVE (2) CHANGE-OF-STATE (3) CONSECUTIVE (4) CONTINUOUS (5) DISTAL DEMONSTRATIVE (6) HABITUAL (7) HORTATIVE |
| GO TO | > | (1) ALLATIVE (2) FUTURE (3) PURPOSE |
| HAND | > | (1) AGENT (2) FIVE (3) LOCATIVE (4) H-POSSESSIVE |
| HEAD | > | (1) FRONT (2) INTENSIVE-REFL (3) MIDDLE (4) REFLEXIVE (5) UP |
| HEART | > | IN (SPATIAL) |
| HERE | > | (1) CAUSE (2) DEMONSTRATIVE |

| <i>Source</i> | | <i>Target</i> |
|-------------------|---|---------------------|
| | | (3) PERS-PRON |
| | | (4) RELATIVE |
| HOME | > | (1) LOCATIVE |
| | | (2) A-POSSESSIVE |
| HOOR | > | TEMPORAL |
| HOUSE | > | LOCATIVE |
| HOW? (W-QUESTION) | > | (1) COMPARATIVE |
| | | (2) SIMILE |
| IN (SPATIAL) | > | (1) CONTINUOUS |
| | | (2) TEMPORAL |
| INDEFINITE | > | COMMON |
| INSTRUMENT | > | (1) ERGATIVE |
| | | (2) MANNER |
| INTENSIVE-REFL | > | (1) EVEN |
| | | (2) REFLEXIVE |
| INTERIOR | > | (1) IN (SPATIAL) |
| | | (2) TEMPORAL |
| ITERATIVE | > | (1) HABITUAL |
| | | (2) STILL |
| KEEP | > | (1) CONTINUOUS |
| | | (2) H-POSSESSIVE |
| KNOW | > | (1) ABILITY |
| | | (2) HABITUAL |
| LACK | > | NEGATION |
| LEAVE | > | (1) ABLATIVE |
| | | (2) COMPLETIVE |
| | | (3) EGRESSIVE |
| | | (4) HORTATIVE |
| | | (5) NEGATION |
| | | (6) PERMISSIVE |
| LIE | > | CONTINUOUS |
| LIMIT | > | UNTIL |
| LIP | > | LOCATIVE |
| LIVE | > | (1) CONTINUOUS |
| | | (2) HABITUAL |
| | | (3) LOCATIVE COPULA |
| | | (4) EXIST |
| LIVER | > | LOCATIVE |
| LOCATIVE | > | (1) AGENT |
| | | (2) CAUSE |
| | | (3) COMPARATIVE |
| | | (4) CONCERN |

| <i>Source</i> | <i>Target</i> |
|-----------------|---------------------------|
| | (5) CONTINUOUS |
| | (6) EXIST |
| | (7) PERS-PRON |
| | (8) A-POSSESSIVE |
| | (9) H-POSSESSIVE |
| | (10) SUBORDINATOR |
| | (11) TEMPORAL |
| LOVE | > (1) AVERTIVE |
| | (2) FUTURE |
| | (3) INTENTION |
| | (4) PROXIMATIVE |
| MAN | > (1) CLASSIFIER |
| | (2) EXCLAMATION |
| | (3) INDEFINITE PRONOUN |
| | (4) MALE |
| | (5) THIRD PERS-PRON |
| MANNER | > SIMILE |
| MATTER | > (1) CAUSE |
| | (2) COMPLEMENTIZER |
| | (3) PURPOSE |
| MIRATIVE | > EVIDENTIAL, INFERENTIAL |
| MOTHER | > FEMALE |
| MOUTH | > FRONT |
| NEAR | > (1) AFTER |
| | (2) AVERTIVE, PROXIMATIVE |
| NECK | > LOCATIVE |
| NEED | > OBLIGATION |
| NEGATION | > S-QUESTION |
| NEGATION, EXIST | > NO, NEGATION |
| NOW (TEMPORAL) | > STILL |
| OBLIGATION | > (1) FUTURE |
| | > (2) PROBABILITY |
| ONE | > (1) ALONE |
| | (2) INDEFINITE |
| | (3) INDEFINITE PRONOUN |
| | (4) ONLY |
| | (5) OTHER |
| | (6) SAME |
| | (7) SINGULATIVE |
| | (8) SOME |
| | (9) TOGETHER |
| OR | > S-QUESTION |

| <i>Source</i> | > | <i>Target</i> |
|------------------------------------|---|--|
| OWE | > | OBLIGATION |
| OWNER | > | INTENSIVE-REFL |
| PASS | > | (1) AFTER (2) COMPARATIVE (3) PAST (4) PATH |
| PEOPLE | > | PLURAL |
| PERFECT | > | (1) PAST (2) PERFECTIVE |
| PERSON | > | (1) INDEFINITE PRONOUN (2) PERS-PRON, FIRST PLURAL |
| PERS-PRON, PLURAL | > | SINGULAR (HONORIFIC) |
| PERS-PRON, THIRD | > | (1) AGREEMENT (2) COPULA |
| PERS-PRON, THIRD PLURAL | > | (1) IMPERSONAL (2) PASSIVE (3) PLURAL |
| PIECE | > | CLASSIFIER |
| PLACE | > | (1) CAUSE (2) INSTEAD (3) LOCATIVE |
| A-POSSESSIVE | > | PARTITIVE |
| H-POSSESSIVE | > | (1) EXIST (2) FUTURE (3) OBLIGATION (4) PERFECT |
| PROPERTY | > | A-POSSESSIVE |
| PURPOSE | > | (1) CAUSE (2) INFINITIVE |
| PUT | > | COMPLETIVE |
| S-QUESTION | > | CONDITIONAL |
| W-QUESTION | > | (1) COMPLEMENTIZER (2) INDEFINITE PRONOUN (3) RELATIVE |
| REFLEXIVE | > | (1) ANTICAUSATIVE (2) MIDDLE (3) PASSIVE (4) RECIPROCAL |
| RELATIVE | > | COMPLEMENTIZER |
| REMAIN | > | (1) DURATIVE (2) HABITUAL |

| <i>Source</i> | <i>Target</i> |
|-------------------------|----------------------|
| RESEMBLE | > (1) COMPARATIVE |
| | (2) COMPLEMENTIZER |
| | > (3) SIMILE |
| RETURN | > ITERATIVE |
| SAME | > INTENSIVE-REFL |
| SAY | > (1) CAUSE |
| | (2) COMPLEMENTIZER |
| | (3) CONDITIONAL |
| | (4) EVIDENTIAL |
| | (5) PURPOSE |
| | (6) QUOTATIVE |
| | (7) SIMILE |
| | (8) SUBORDINATOR |
| SEE | > (1) ALLATIVE |
| | (2) PASSIVE |
| SHOULDER | > UP |
| SIDE | > (1) BESIDE |
| | (2) LOCATIVE |
| | (3) NEAR |
| SIMILE | > (1) COMPLEMENTIZER |
| | (2) QUOTATIVE |
| SINCE (TEMPORAL) | > CAUSE |
| SIT | > (1) CONTINUOUS |
| | (2) COPULA |
| | (3) HABITUAL |
| SKY | > UP |
| SONG | > CLASSIFIER |
| STAND | > (1) CONTINUOUS |
| | (2) COPULA |
| STOP | > PROHIBITIVE |
| SUFFER | > PASSIVE |
| SUITABLE | > (1) ABILITY |
| | (2) OBLIGATION |
| SURROUND | > AROUND (SPATIAL) |
| TAKE | > (1) CAUSATIVE |
| | (2) COMITATIVE |
| | (3) COMPLETIVE |
| | (4) FUTURE |
| | (5) INSTRUMENT |
| | (6) PATIENT |
| | (7) H-POSSESSIVE |

| <i>Source</i> | <i>Target</i> |
|---------------|---|
| TEMPORAL | > (1) ADVERSATIVE (2) CAUSE (3) CONCESSIVE (4) CONDITIONAL |
| THEN | > FUTURE |
| THERE | > DEMONSTRATIVE |
| THING | > (1) COMPLEMENTIZER (2) INDEFINITE PRONOUN (3) A-POSSESSIVE |
| THREE | > TRIAL, PLURAL |
| THROW | > PERFECT |
| TIME | > TEMPORAL |
| TOMORROW | > (1) FUTURE (2) NEXT |
| TOP | > UP |
| TRACE | > (1) AFTER (2) BEHIND |
| TREE | > CLASSIFIER |
| TRUE | > INTENSIFIER |
| TWO | > (1) DUAL (2) NP-AND |
| UNTIL | > EQUATIVE COMPARATIVE |
| UP | > (1) ADDITIVE (2) COMPARATIVE (3) CONCERN |
| USE | > HABITUAL |
| VENITIVE | > FUTURE |
| WANT (PAST) | > (1) AVERTIVE (2) FUTURE (3) PROXIMATIVE |
| WOMAN | > (1) CLASSIFIER (2) FEMALE |
| YESTERDAY | > PAST |

APPENDIX 2

Target–Source List

| <i>Target</i> | <i>Source</i> |
|----------------------------------|---|
| ABILITY | < (1) ARRIVE (2) GET (3) KNOW (4) SUITABLE |
| ABLATIVE (LOCATIVE, TEMPORAL) | < (1) COME FROM (2) LEAVE |
| ACCORDING TO | < FOLLOW |
| ACROSS | < CROSS |
| ADDITIVE | < UP |
| ADVERSATIVE | < TEMPORAL |
| AFTER | < (1) BACK (2) BEHIND (SPATIAL) (3) FINISH (4) NEAR (5) PASS (6) TRACE |
| AGENT | < (1) ABLATIVE (2) COMITATIVE (3) HAND (4) LOCATIVE |
| AGREEMENT | < PERS-PRON, THIRD |
| ALLATIVE | < (1) ARRIVE (2) GO TO (3) SEE |
| ALONE | < ONE (NUMERAL) |
| ALREADY | < FINISH |
| NP-AND | < (1) ALSO (2) COMITATIVE (3) DUAL (4) TWO |

| <i>Target</i> | <i>Source</i> |
|-------------------------|---|
| S-AND | < COMITATIVE |
| ANDATIVE | < GO |
| ANTICAUSATIVE | < REFLEXIVE |
| AROUND (SPATIAL) | < (1) CIRCLE (2) ENVIRONS (3) SURROUND |
| AVERTIVE | < (1) COPULA (2) FAIL (3) LOVE (4) NEAR (5) WANT |
| BEFORE | < (1) EYE (2) FIRST (TEMPORAL) (3) FRONT |
| BEHIND | < (1) BACK (2) BUTTOCKS (3) FOLLOW (4) FOOTPRINT |
| BENEFACTIVE | < (1) COME TO (2) GIVE |
| BESIDE | < SIDE |
| BETWEEN | < CENTER |
| CAUSATIVE | < (1) DO (2) GIVE (3) TAKE |
| CAUSE | < (1) BACK (2) HERE (3) LOCATIVE (4) MATTER (5) PLACE (6) PURPOSE (7) SAY (8) SINCE (TEMPORAL) (9) TEMPORAL |
| CHANGE-OF-STATE | < (1) COME TO (2) GET (3) GO |
| CLASSIFIER | < (1) BRANCH (2) CHILD (3) MAN (4) PIECE (5) SONG |

| <i>Target</i> | <i>Source</i> |
|--------------------------|-----------------------|
| | (6) TREE |
| | (7) WOMAN |
| COMITATIVE | < (1) COMRADE |
| | (2) FOLLOW |
| | (3) TAKE |
| COMMON | < INDEFINITE |
| COMPARATIVE | < (1) ABLATIVE |
| | (2) DATIVE |
| | (3) EXCEED |
| | (4) HOW? (W-QUESTION) |
| | (5) LOCATIVE |
| | (6) PASS |
| | (7) RESEMBLE |
| | (8) UP |
| COMPARATIVE, EQUATIVE | < UNTIL |
| COMPLEMENTIZER | < (1) ALLATIVE |
| | (2) DEMONSTRATIVE |
| | (3) MATTER |
| | (4) W-QUESTION |
| | (5) RELATIVE |
| | (6) RESEMBLE |
| | (7) SAY |
| | (8) THING |
| COMPLETIVE | < (1) FINISH |
| | (2) LEAVE |
| | (3) PUT |
| | (4) TAKE |
| CONCERN | < (1) GIVE |
| | (2) LOCATIVE |
| | (3) UP |
| CONCESSIVE | < (1) CONDITIONAL |
| | (2) TEMPORAL |
| CONDITIONAL | < (1) COPULA |
| | (2) S-QUESTION |
| | (3) SAY |
| | (4) TEMPORAL |
| CONJUNCTION | < DEMONSTRATIVE |
| CONSECUTIVE | < (1) COME |
| | (2) COPULA |
| | (3) FINISH |
| | (4) GO |

| <i>Target</i> | <i>Source</i> |
|-----------------------|---|
| CONTINUOUS | < (1) COME (2) COMITATIVE (3) DO (4) EXIST (5) GO (6) IN (SPATIAL) (7) KEEP (8) LIE (9) LIVE (10) LOCATIVE (11) LOCATIVE COPULA (12) SIT (13) STAND |
| COPULA | < (1) CHANGE-OF-STATE (2) DEMONSTRATIVE (3) SIT (4) STAND |
| COPULA, EQUATIVE | < COPULA, LOCATIVE |
| COPULA, LOCATIVE | < LIVE |
| DATIVE | < (1) ALLATIVE (2) BENEFACTIVE (3) GIVE |
| DEFINITE | < DEMONSTRATIVE |
| DEMONSTRATIVE | < (1) HERE (2) THERE |
| DEMONSTRATIVE, DISTAL | < GO |
| DIMINUTIVE | < CHILD |
| DOWN | < (1) BOTTOM (2) BUTTOCKS (3) DESCEND (4) EARTH (5) FALL (6) FOOT |
| DUAL | < TWO |
| DURATIVE | < REMAIN |
| EARLIER | < BACK |
| EGRESSIVE | < LEAVE |
| ELATIVE | < EXCEED |
| EMPHASIS | < DO |
| EPISTEMIC MODALITY | < DEONTIC MODALITY |
| ERGATIVE | < INSTRUMENT |
| EVEN | < INTENSIVE-REFL |

| <i>Target</i> | <i>Source</i> |
|--------------------------|---|
| EVIDENTIAL | < SAY |
| EVIDENTIAL, INFERENCE | < MIRATIVE |
| EXCLAMATION | < MAN |
| EXIST | < (1) COMITATIVE (2) LOCATIVE COPULA (3) LIVE (4) LOCATIVE (5) H-POSSESSIVE |
| FEMALE | < (1) MOTHER (2) WOMAN |
| FIRST (NUMERAL) | < BEGIN |
| FIRST (TEMPORAL) | < BEGIN |
| FIVE | < HAND |
| FOCUS | < (1) COPULA (2) DEMONSTRATIVE |
| FRONT | < (1) BREAST (2) EYE (3) FACE (4) FOREHEAD (5) HEAD (6) MOUTH |
| FUTURE | < (1) COME TO (2) COPULA (3) DEONTIC MODALITY (4) GO TO (5) LOVE (6) OBLIGATION (7) H-POSSESSIVE (8) TAKE (9) THEN (10) TOMORROW (11) VENITIVE (12) WANT |
| HABITUAL | < (1) CONTINUOUS (2) GO (3) ITERATIVE (4) KNOW (5) LIVE (6) REMAIN (7) SIT (8) USE |

| <i>Target</i> | <i>Source</i> |
|--------------------|---|
| HORTATIVE | < (1) COME (2) GO (3) LEAVE |
| IMPERSONAL | < PERS-PRON, THIRD PLURAL |
| IN (SPATIAL) | < (1) BELLY (2) BOWELS (3) CENTER (4) HEART (5) INTERIOR |
| IN (TEMPORAL) | < (1) BELLY (2) IN (SPATIAL) |
| INCEPTIVE | < BEGIN |
| INDEFINITE | < ONE |
| INDEFINITE PRONOUN | < (1) MAN (2) ONE (3) PERSON (4) W-QUESTION (5) THING |
| INFINITIVE | < (1) ALLATIVE (2) PURPOSE |
| INSTEAD | < PLACE |
| INSTRUMENT | < (1) COMITATIVE (2) TAKE |
| INTENSIFIER | < (1) BAD (2) TRUE |
| INTENSIVE-REFL | < (1) BODY (2) HEAD (3) OWNER (4) SAME |
| INTENTION | < LOVE |
| ITERATIVE | < RETURN |
| LATER | < (1) FRONT (2) THEN |
| LOCATIVE | < (1) AREA (2) EAR (3) EDGE (4) HAND (5) HOME (6) HOUSE (7) LIP (8) LIVER (9) LOCATIVE COPULA |

| <i>Target</i> | <i>Source</i> |
|---------------|-----------------------------|
| | (10) NECK |
| | (11) PLACE |
| | (12) SIDE |
| MALE | < (1) FATHER |
| | (2) MAN |
| MANNER | < (1) COMITATIVE |
| | (2) INSTRUMENT |
| MATERIAL | < ABLATIVE |
| MIDDLE | < (1) BODY |
| | (2) HEAD |
| | (3) REFLEXIVE |
| NEAR | < SIDE |
| NEGATION | < (1) LACK |
| | (2) LEAVE |
| | (3) NEGATION, EXIST |
| NEXT | < TOMORROW |
| NO LONGER | < COMPARATIVE (+ NEGATION) |
| OBLIGATION | < (1) COPULA |
| | (2) DO |
| | (3) GET |
| | (4) NEED |
| | (5) OWE |
| | (6) H-POSSESSIVE |
| | (7) SUITABLE |
| ONLY | < (1) ALONE |
| | (2) ONE |
| OTHER | < ONE |
| OUT | < FIELD |
| PARTITIVE | < (1) ABLATIVE |
| | (2) CHILD |
| | (3) A-POSSESSIVE |
| PASSIVE | < (1) ANTICAUSATIVE |
| | (2) COMITATIVE |
| | (3) EAT |
| | (4) FALL |
| | (5) GET |
| | (6) PERS-PRON, THIRD PLURAL |
| | (7) REFLEXIVE |
| | (8) SEE |
| | (9) SUFFER |
| PAST | < (1) GET |
| | (2) PASS |

| <i>Target</i> | <i>Source</i> |
|----------------------------|-----------------------------|
| | (3) PERFECT |
| | (4) YESTERDAY |
| PAST, NEAR | < (1) ABLATIVE |
| | (2) COME FROM |
| PATH | < PASS |
| PATIENT | < (1) ALLATIVE |
| | (2) DATIVE |
| | (3) TAKE |
| PERFECT | < (1) H-POSSESSIVE |
| | (2) THROW |
| PERFECTIVE | < (1) FINISH |
| | (2) PERFECT |
| PERMISSIVE | < (1) ABILITY |
| | (2) GET |
| | (3) LEAVE |
| PERS-PRON | < (1) HERE |
| | (2) LOCATIVE |
| PERS-PRON, FIRST PLURAL | < PERSON |
| PLURAL | < (1) ALL |
| | (2) CHILDREN |
| | (3) PEOPLE |
| | (4) PERS-PRON, THIRD PLURAL |
| | (5) THREE |
| A-POSSESSIVE | < (1) ABLATIVE |
| | (2) BENEFACTIVE |
| | (3) DATIVE |
| | (4) HOME |
| | (5) LOCATIVE |
| | (6) PROPERTY |
| | (7) THING |
| B-POSSESSIVE | < DATIVE |
| H-POSSESSIVE | < (1) COMITATIVE |
| | (2) COPULA, LOCATIVE |
| | (3) DATIVE |
| | (4) EXIST |
| | (5) HAND |
| | (6) KEEP |
| | (7) LOCATIVE |
| POSSIBILITY | < (1) ABILITY |
| | (2) GET |
| PRESENT | < CONTINUOUS |

| <i>Target</i> | <i>Source</i> |
|----------------------|--|
| INDEFINITE PRONOUN | < THING |
| PROBABILITY | < OBLIGATION |
| PROHIBITIVE | < STOP |
| PRO-VERB | < (1) BEAT (2) DO |
| PROXIMATIVE | < (1) COME TO (2) LOVE (3) NEAR (4) WANT |
| PURPOSE | < (1) ALLATIVE (2) BENEFACTIVE (3) COME TO (4) COMPLEMENTIZER (5) GIVE (6) GO TO (7) MATTER (8) SAY |
| S-QUESTION | < (1) NEGATION (2) OR |
| QUOTATIVE | < (1) SAY (2) SIMILE |
| RECIPROCAL | < (1) BODY (2) COMRADE (3) REFLEXIVE |
| REFLEXIVE | < (1) BODY (2) HEAD (3) INTENSIVE-REFL |
| RELATIVE | < (1) DEMONSTRATIVE (2) HERE (3) W-QUESTION |
| SAME | < ONE |
| SIDE (SPATIAL) | < FLANK |
| SIMILE | < (1) HOW? (2) MANNER (3) SAY |
| SINCE (TEMPORAL) | < ABLATIVE |
| SINGULAR (HONORIFIC) | < PERS-PRON, PLURAL |
| SINGULATIVE | < ONE |
| SOME | < ONE |
| STILL | < (1) ITERATIVE (2) NOW |
| SUBORDINATOR | < (1) VP-AND |

| <i>Target</i> | | <i>Source</i> |
|-----------------|---|-------------------|
| | | (2) DEMONSTRATIVE |
| | | (3) LOCATIVE |
| | | (4) SAY |
| SUCCEED | < | (1) GET |
| | | (2) ARRIVE |
| SUPERLATIVE | < | (1) ALL |
| | | (2) DEFINITE |
| TEMPORAL | < | (1) ALLATIVE |
| | | (2) COMITATIVE |
| | | (3) HOUR |
| | | (4) IN (SPATIAL) |
| | | (5) INTERIOR |
| | | (6) LOCATIVE |
| | | (7) TIME |
| THEN | < | BACK |
| THIRD PERS-PRON | < | (1) DEMONSTRATIVE |
| | | (2) MAN |
| TOGETHER | < | ONE |
| TRIAL, PLURAL | < | THREE |
| UNTIL | < | (1) ALLATIVE |
| | | (2) ARRIVE |
| | | (3) BOUNDARY |
| UP | < | (1) BACK |
| | | (2) FACE |
| | | (3) HEAD |
| | | (4) SHOULDER |
| | | (5) SKY |
| VENITIVE | < | COME |

APPENDIX 3

A List of Languages

The following is a list of all languages treated in this work. The information on language classification is meant to assist the reader in locating the languages treated; that is, it serves a referential purpose and does not make any claim on the existence or nonexistence of genetic relationship. Information is confined to giving the name of the family or phylum plus some salient subgrouping. The plus sign (+) stands for an extinct or ancient language.

Pidgin (P) and creole (C) examples are marked by adding abbreviated labels after the language name. For example, “CE” stands for “English-based creole.” Note that the classification underlying this usage is a crude one, since terms like “English-based,” “Portuguese-based,” and so on are not unproblematic, and the boundary between pidgins and creole languages is often fuzzy.

[Xam (+); Southern, Khoisan
!Xóǀ; Southern, Khoisan
!Xun (!Kung, Zhu, Ju); Northern, Khoisan
!Ora (Korana); Central (or Khoe), Khoisan
||Ani; Central (or Khoe), Khoisan
Abaza; Northwest, North, Caucasian
Abipon; Ge-Pano, Ge-Pano-Carib, Amerind
Abkhaz (Abxaz); Northwest, North, Caucasian
Accadian (Akkadian) (+); Semitic, Afroasiatic
Acholi; Nilotic, Nilo-Saharan
Acoma Keresan; Keresiouan, Northern Amerind
Ainu; Korean-Japanese, Altaic
Akan; Kwa, Niger-Congo
Akatek; Q’anjob’alan, Mayan
Akha; Burmic, Tibeto-Burman
Akkadian *see* Accadian
Alacatlazala; Mixtecan, Oto-Manguean
Alamblak; Sepik, Sepik-Ramu
Albanian; Albanian, Indo-European

Alyawarra; Arandic, Pama-Nyungan
 Ambrym (Lonwolwol); Oceanic, Malayo-Polynesian
 Ambulas; Sepik, Sepik-Ramu
 American Sign Language
 Amharic; Semitic, Afroasiatic
 Anyi; Kwa, Niger-Congo
 Anywa; Nilotic, Nilo-Saharan
 Amharic; Semitic, Afroasiatic
 Arabic; Semitic, Afroasiatic
 Aranda; Arandic, Pama-Nyungan
 Arawak; Macro-Arawakan, Equatorial-Tucanoan
 Armenian; Indo-European
 'Are'are; Oceanic, Austronesian, Austro-Tai
 Arosi; Oceanic, Austronesian
 Atchin; Oceanic, Austronesian
 Attié; Togo (Kwa), Niger-Congo
 Autu *see* Awtuw
 Avar; North, Caucasian
 Awtuw (Autu); Sepik, Sepik-Ramu
 Awutu; Kwa, Niger-Congo
 Aztec (Nahuatl); Aztecan, Uto-Aztecan. Cf. Nahuatl
 Bagirmi; Central Sudanic, Nilo-Saharan
 Bahamian CE; English-based creole
 Baka; Ubangian, Niger-Congo
 Bakwé; Kru, Niger-Congo
 Baluchi; Indo-Iranian, Indo-European
 Bambara; Mande, Niger-Congo
 Banda; Austronesian, Austro-Tai
 Barasano (Southern); Tucanoan, Equatorial-Tucanoan
 Bari; Nilotic, Nilo-Saharan
 Basque; isolate
 Bassa; Kru, Niger-Congo
 Belizean CE; English-based creole
 Bemba; Bantu, Niger-Congo
 Bengali; Indo-Iranian, Indo-European
 Bété; Kru, Niger-Congo
 Big Nambas; Oceanic, Malayo-Polynesian
 Bihari; Indo-Iranian, Indo-European
 Bongo; Central Sudanic, Nilo-Saharan
 Boni; Cushitic, Afroasiatic
 Borobo; Kru, Niger-Congo
 Breton; Celtic, Indo-European
 Buang; Austronesian, Austro-Tai
 Bulgarian; Slavic, Indo-European

Bulu; Bantu, Niger-Congo
 Bura; Chadic, Afroasiatic
 Burmese; Tibeto-Burman, Sino-Tibetan
 Buru; Central, Malayo-Polynesian
 Cagaba; Aruak, Chibchan
 Cahuilla; Takic, Uto-Aztecan
 Cakchiquel; Mayan, Penutian
 Cameroonian PE; English-based pidgin
 Canela-Krahô; Ge-Pano, Macro-Carib
 Cantonese; Sinitic, Sino-Tibetan
 Catalan; Romance, Indo-European
 Cayapo; Ge-Pano, Amerind
 Cayenne CF; French-based creole
 Cebaara; Gur (= Voltaic), Niger-Congo
 Cedepo; Kru, Niger-Congo
 Chacaltongo-Mixtec; Mixtecan, Oto-Manguean
 Chaga (Chagga); Bantu, Niger-Congo
 Chaga (Mochi dialect); Bantu, Niger-Congo
 Chamling; Tibeto-Burman, Sino-Tibetan
 Chamus (Maa dialect); Nilotic, Nilo-Saharan
 Chikasaw; Penutian
 Chinese (Mandarin); Sinitic, Sino-Tibetan
 Chinese PE; English-based pidgin
 Chinese Pidgin Russian; pidgin
 Chinook; Penutian, Amerind
 Chinook Jargon; Chinook-based pidgin
 Chrau; Mon-Khmer, Austroasiatic
 Chukchee (Chukchi); Chukchi, Chukchi-Kamchatkan
 Copala Trique *see* Trique
 Coptic (+); Egyptian, Afroasiatic
 Cora; Corachol, Uto-Aztecan
 Cree *see* Plains Cree
 Croatian; Slavic, Indo-European
 Dagbane; Gur (= Voltaic), Niger-Congo
 Dakota (Lakhota); Keresiouan, Northern Amerind
 Danish; Germanic, Indo-European
 Dewoin; Kru, Niger-Congo
 Dholuo *see* Luo
 Dida (Lakota Dida); Kru, Niger-Congo
 Didinga; Eastern Sudanic, Nilo-Saharan
 Diegueño; Hokan, Amerind
 Diola Fogy (Diola); West Atlantic, Niger-Congo
 Dioula (= Dyula); Mande, Niger-Congo
 Diuxi-Tilantongo; Mixtecan, Oto-Manguean

Diyari; Karnic, Pama-Nyungan
 Djinang; Yuulngu, Pama-Nyungan
 Djinba; Yuulngu, Pama-Nyungan
 Djuká *see* Ndjuka
 Djwarli *see* Jiwarli
 Dogon; Gur, Niger-Congo
 Dolakha-Newari *see* Newari
 Dschang; Benue-Congo, Niger-Congo
 Duala; Bantu, Niger-Congo
 Dullay; Cushitic, Afroasiatic
 Dutch; Germanic, Indo-European
 Dyabo; Kru, Niger-Congo
 Dyirbal; Dyirbalic, Pama-Nyungan
 Dyula *see* Dioula
 Easter Island (Rapanui); Oceanic, Malayo-Polynesian
 Eastern Australian PE; English-based pidgin
 Ebira; Kwa, Niger-Congo
 Efik; Benue-Congo, Niger-Congo
 Egyptian (+); Afroasiatic
 Engenni; Edo, Niger-Congo
 English; Germanic, Indo-European
 Estonian; Finnic, Finno-Ugric
 Ewe; Kwa, Niger-Congo
 Fa d'Ambu CP; Portuguese-based creole
 Faroese; Germanic, Indo-European
 Fijian; Oceanic, Austronesian
 Finnish; Finnic, Finno-Ugric
 Fon; Kwa, Niger-Congo
 Fore; Trans-New Guinea, Indo-Pacific
 French; Romance, Indo-European
 Frisian; Germanic, Indo-European
 Fulfulde (Fula, Ful, Fulani, Peul); West Atlantic, Niger-Congo
 Futa Toro (Fulfulde dialect); West Atlantic, Niger-Congo
 Ga (Gã); Kwa, Niger-Congo
 Gabu (Gobu); Adamawa-Ubangi, Niger-Congo
 Gadsup (Gadsup-Agarabi); Trans-New Guinea
 Gaelic, Scottish; Celtic, Indo-European
 Ganda; Bantu, Niger-Congo
 Gbaya; Ubangian, Niger-Congo
 Gbuu; Kru, Niger-Congo
 Ge'ez (Geez) (+); Semitic, Afroasiatic
 Georgian; South, Caucasian
 German; Germanic, Indo-European
 Ghanaian PE; English-based pidgin

Gidar (Gidari); Chadic, Afroasiatic
 Gikuyu *see* Kikuyu
 Gimira; Omotic, Afroasiatic
 Gisiga; Chadic, Afroasiatic
 Gobu *see* Gabu
 Godié; Kru, Niger-Congo
 Gokana; Benue-Congo, Niger-Congo
 Gola; West Atlantic, Niger-Congo
 Gothic; Germanic, Indo-European
 Grand Bassa; Kru, Niger-Congo
 Grebo; Kru, Niger-Congo
 Greek; Greek, Indo-European
 Gurenne; Gur (= Voltaic), Niger-Congo
 Guyanese CE; English-based creole¹
 Guyanese CF; French-based creole
 Gwari; Central Niger, Niger-Congo
 Haitian CF; French-based creole
 Halia; Oceanic, Austronesian
 Hamar (Hamar); Omotic, Afroasiatic
 Hausa; Chadic, Afroasiatic
 Hawaiian; Oceanic, Malayo-Polynesian
 Hebrew; Semitic, Afroasiatic
 Herero; Bantu, Niger-Congo
 Hindi; Indo-Iranian, Indo-European
 Hittite; Indo-European
 Hixkaryana (Hishkaryana); Southern, Carib
 Hmong; Miao-Yao, Austric
 Hona; Chadic, Afroasiatic
 Hua; Gorokan, Trans-New Guinea
 Hunde; Bantu, Niger-Congo
 Hungarian; Ugric, Finno-Ugric
 Ibibio; Kwa, Niger-Congo
 Icelandic; Germanic, Indo-European
 Idoma; Central Niger, Niger-Congo
 Igbo; Lower Niger, Niger-Congo
 Ijo; Ijo, Niger-Congo
 Ik; Kuliak, Nilo-Saharan
 Imbabura Quechua; Andean, Amerind
 Imonda; Waris, Trans-New Guinea
 Indian Ocean CF; French-based creole
 Indonesian; Malayo-Polynesian, Austronesian

¹ Note that there are two different Guyanese creoles.

Inuit; Eskimo, Eskimo-Aleut
 Iraqw; Cushitic, Afroasiatic
 Irish (Gaelic); Celtic, Indo-European
 Italian; Romance, Indo-European
 Jacaltec; Mayan, Penutian
 Jamaican CE; English-based creole
 Japanese; Korean-Japanese, Altaic
 Jeri (Jeli); Mande, Niger-Congo
 Jiddu (Somali dialect); Cushitic, Afroasiatic
 Jimini (Dyimini); Gur (= Voltaic), Niger-Congo
 Jiwarli (Djwarli); South-West, Pama-Nyungan
 Ju *see* !Xun
 Juang; Munda, Austroasiatic
 Kabiye (Kabre); Gur (= Voltaic), Niger-Congo
 Kabuverdiano (Cape Verde) CP; Portuguese-based creole
 Kagbo; Kru, Niger-Congo
 Kala Lagau Ya (Mabuiag); Pama-Nyungan
 Kalam; East New Guinea Highlands, Indo-Pacific
 Kalasha; Indo-Iranian, Indo-European
 Kaliko *see* Keliko
 Kamba; Bantu, Niger-Congo
 Kanakuru; Chadic, Afroasiatic
 Kannada; South, Dravidian
 Kanuri; Saharan, Nilo-Saharan
 Karok; Northern, Hokan
 Kashmiri; Indo-Iranian, Indo-European
 Kedah Malay; Malayo-Polynesian, Austronesian
 Keliko (Kaliko); Central Sudanic, Nilo-Saharan
 Kenya PS; Swahili-based pidgin
 Ket; isolate
 Kharia, Munda, Austroasiatic
 Khasi; Mon-Khmer, Austroasiatic
 Khmer (Cambodian); Mon-Khmer, Austroasiatic
 Khowar; Indo-Iranian, Indo-European
 Kikongo *see* Kongo
 Kikuyu (Gikuyu); Bantu, Niger-Congo
 Kilivila; Oceanic, Austronesian
 Kimbundu; Bantu, Niger-Congo
 Kiowa; Tanoan, Central Amerind
 Kipsikiis (Kipsigis); Nilotic, Nilo-Saharan
 Kirma; Gur (= Voltaic), Niger-Congo
 Kisi; West Atlantic, Niger-Congo Proper
 Klao (Klau); Kru, Niger-Congo
 Koasati; Muskogean, Penutian

Kode (Baule dialect); Kwa, Niger-Congo
 Kongo (Kikongo); Bantu, Niger-Congo
 Kono; Mande, Niger-Congo
 Koranko; Mande, Niger-Congo
 Korean; Korean-Japanese, Altaic
 Koromfe; Gur (= Voltaic), Niger-Congo
 Kotiya Oriya (Oriya); Indo-Iranian, Indo-European
 Koyo; Kru, Niger-Congo
 Kpelle; Mande, Niger-Congo
 Krahn (Tchien Krahn); Kru, Niger-Congo
 Krio CE; English-based creole
 Krongo; Kordofanian, Kongo-Kordofanian
 Kuba; Bantu, Niger-Congo
 Kui; Telugu-Kui, Dravidian
 Kupto; Chadic, Afroasiatic
 Kusasi (Kusal); Gur (= Voltaic), Niger-Congo
 Kusal *see* Kusasi
 Kwaio; Oceanic, Austronesian
 Kwami; Chadic, Afroasiatic
 Kwará'ae; Oceanic, Austronesian
 Kxoe; Central (= Khoe), Khoisan
 Lahu; Tibeto-Burman, Sino-Tibetan
 Lakota Dida *see* Dida
 Lamang; Chadic, Afroasiatic
 Lango; Nilotic, Nilo-Saharan
 Latin (+); Italic, Indo-European
 Latvian; Baltic, Indo-European
 Lele; Chadic, Afroasiatic
 Lendu; East Sudanic, Nilo-Saharan
 Lezgian; North, Caucasian
 Lhasa; Tibeto-Burman, Sino-Tibetan
 Limbu; Tibeto-Burman, Sino-Tibetan
 Lingala; Bantu, Niger-Congo
 Lithuanian; Baltic, Indo-European
 Logbara *see* Lugbara
 Logo; Central Sudanic, Nilo-Saharan
 Logone; Chadic, Afroasiatic
 Lomwe; Bantu, Niger-Congo
 Londo; Bantu, Niger-Congo
 Lonwolwol *see* Ambrym
 Lotuko (Lotuxo); Nilotic, Nilo-Saharan
 Louisiana CF; French-based creole
 Luba; Bantu, Niger-Congo
 Lugbara (Logbara); Central Sudanic, Nilo-Saharan

Luo (Dholuo); Nilotic, Nilo-Saharan
 Maa; Nilotic, Nilo-Saharan
 Maasai (Maa dialect); Nilotic, Nilo-Saharan
 Mabiha; Bantu, Niger-Congo
 Mabuiag *see* Kala Lagau Ya
 Macedonian; Slavic, Indo-European
 Malagasy; Malayo-Polynesian, Austronesian
 Malayalam; South, Dravidian
 Malinke; Mande, Niger-Congo
 Maltese; Semitic, Afroasiatic
 Malti; unclassified
 Mamvu; Central Sudanic, Nilo-Saharan
 Manam; Oceanic, Austronesian
 Mandan; Siouan, Keresiouan
 Mandara; Chadic, Afroasiatic
 Mandarin Chinese; Sinitic, Sino-Tibetan
 Manding; Mande, Niger-Congo
 Mandinka; Mande, Niger-Congo
 Maninka; Mande, Niger-Congo
 Mano; Mande, Niger-Congo
 Maori; Polynesian, Austronesian
 Mapuche (Mapudungu [= Araucanian]); Southern Andean, Amerind
 Marathi; Indo-Iranian, Indo-European
 Margi; Chadic, Afroasiatic
 Maricopa; Yuman, Hokan
 Mauritius CF; French-based creole
 Mayo *see* Yessan-Mayo
 Mezquital Otomi (Otomi); Otomian, Oto-Manguean
 Midhaga; Karnic, Pama-Nyungan
 Mina; Chadic, Afroasiatic
 Mingrelian; South, Caucasian
 Miwok; Penutian
 Mixe; Mexican, Penutian
 Mixe-Zoque; Mexican, Penutian
 Mixtec; Mixtecan, Oto-Manguean
 Mochi *see* Chaga
 Mokilese; Oceanic, Austronesian
 Mongolian; Mongolian-Tungus, Altaic
 Mopun *see* Mupun
 Mordvin(ian); Finnic, Finno-Ugric
 Moré (More); Gur (= Voltaic), Niger-Congo
 Moru; Central Sudanic, Nilo-Saharan
 Motu; Oceanic, Austronesian
 Muduug (Somali dialect); Cushitic, Afroasiatic

Mundari; Munda, Austroasiatic
 Mupun (Mopun); Chadic, Afroasiatic
 Mursi; Surma, Nilo-Saharan
 Naga; Tibeto-Burman, Sino-Tibetan
 Naga; Malayo-Polynesian, Austronesian
 Naga Pidgin *see* Naga; Malayo-Polynesian
 Nahuatl; Aztecan, Uto-Aztecan. Cf. Aztec
 Nama; Central (= Khoe), Khoisan
 Namakura; Oceanic, Austronesian
 Nambas *see* Big Nambas
 Nanay (Gold); Tungusic, Manchu-Tungusic
 Ndebele; Bantu, Niger-Congo
 Ndjuka (Djuká) CE; English-based creole
 Negerhollands CD; Dutch-based creole
 Nepali; Indo-Iranian, Indo-European
 Newari; Tibeto-Burman, Sino-Tibetan
 Neyo; Kru, Niger-Congo
 Ngalakan; Gunywinyan, Australian
 Ngambay Moundou (Gambai); Central Sudanic, Nilo-Saharan
 Ngbaka; Ubangian, Niger-Congo
 Ngbaka Ma'Bo; Ubangian, Niger-Congo
 Ngbandi; Ubangian, Niger-Congo
 Ngiti; Central Sudanic, Nilo-Saharan
 Nguna; Austronesian, Austro-Tai
 Nigerian PE; English-based pidgin
 Nobiin; Nubian, Nilo-Saharan
 Norse, Old; Germanic, Indo-European
 Norwegian; Germanic, Indo-European
 Nubi CA; Arabic-based creole
 Nuer; Nilotic, Nilo-Saharan
 Nung; Tibeto-Burman, Sino-Tibetan
 Nupe; Central Niger, Niger-Congo
 Nyabo; Kru, Niger-Congo
 Nyanja; Bantu, Niger-Congo
 Nzakara; Ubangian, Niger-Congo
 Omyene; Bantu, Niger-Congo
 Oneida; Iroquoian, Keresiouan
 Oriya *see* Kotiya Oriya
 Oromo; Cushitic, Afroasiatic
 Órón; Kwa, Niger-Congo
 Otomi *see* Mezquital Otomi
 Paamese; Oceanic, Austronesian
 Pakaas Novos *see* Wari'
 Palaung (Rumai); Mon-Khmer, Austroasiatic

Papago (= Pima); Uto-Aztecan, Amerind
 Papia Kristang CP; Portuguese-based creole
 Papiamentu CS, CP; Spanish/Portuguese-based creole
 Pāri; Nilotic, Nilo-Saharan
 Pero; Chadic, Afroasiatic
 Persian (Farsi); Indo-Iranian, Indo-European
 Peul *see* Fulfulde
 Pilara; Gur (= Voltaic), Niger-Congo
 Pima *see* Papago
 Pipil; Aztecan, Uto-Aztecan
 Pirahã; Mura, Macro-Chibcha
 Pitta-Pitta; Karnic, Pama-Nyungan
 Plains Cree; Algonquian, Almosan
 Pokomo; Bantu, Niger-Congo
 Polish; Slavic, Indo-European
 Ponapean; Oceanic, Austronesian
 Portuguese; Romance, Indo-European
 Punjabi; Indo-Iranian, Indo-European
 Quechua; Andean, Amerind
 Quiché; Mayan, Penutian
 Rama; Chibchan, Amerind
 Rapanui *see* Easter Island
 Rendille; Cushitic, Afroasiatic
 Réunion CF; French-based creole
 River Cess Bassa; Kru, Niger-Congo
 Rodrigues CF; French-based creole
 Romanian; Romance, Indo-European
 Rukai; Tsouic, Austronesian
 Russian; Slavic, Indo-European
 Sa'a; Oceanic, Austronesian
 Saho; Cushitic, Afroasiatic
 Salinan; Hokan, Amerind
 Samburu (Maa dialect); Nilotic, Nilo-Saharan
 Sami (Saami) (Lappic); Finnic, Finno-Ugric
 Samoan; Polynesian, Austronesian
 Sango; Ubangian, Niger-Congo
 Sanskrit (+); Indo-Iranian, Indo-European
 Santali; Munda, Austroasiatic
 Sanuma; Yanomam, Chibchan
 São Tomense CP; Portuguese-based creole
 Sapo; Kru, Niger-Congo
 Saramaccan (Surinam creole) CE; English-based creole
 Sardinian (Sardic); Romance, Indo-European
 Scottish Gaelic *see* Gaelic

Senufo (Senari); Gur (= Voltaic), Niger-Congo
 Serbo-Croatian; Slavic, Indo-European
 Seselwa *see* Seychelles CF
 Sesotho *see* Sotho, Southern
 Setswana *see* Tswana
 Settra; Kru, Niger-Congo
 Seychelles (Seselwa) CF; French-based creole
 Shilluk; Nilotic, Nilo-Saharan
 Shona; Bantu, Niger-Congo
 Shuswap; Salish, Amerind
 Silacayoapan; Mixtecan, Oto-Manguan
 Sinhalese; Indo-Iranian, Indo-European
 Sinto; Indo-Iranian, Indo-European
 Siroi; Mandang, Trans–New Guinea
 Slave; Athapaskan, Na-Dene
 Slavic, Common; Slavic, Indo-European
 So; Kuliak, Nilo-Saharan
 Solomon Pijin CE; English-based creole
 Somali; Cushitic, Afroasiatic
 Sora; Munda, Austroasiatic
 Sorbian (Upper); Slavic, Indo-European
 Sotho, Northern; Bantu, Niger-Congo
 Sotho (Sesotho), Southern; Bantu, Niger-Congo
 Southern Barasano *see* Barasano
 Spanish; Romance, Indo-European
 Squamish; Salish, Amerind
 Sranan CE (Surinam creole); English-based creole
 Sri Lanka CP; Portuguese-based creole
 Sumerian (+); isolate
 Sunwar; Tibetic, Tibeto-Burman
 Supyire (Suppire); Gur (= Voltaic), Niger-Congo
 Surselvan; Rhaeto-Romance, Indo-European
 Susu; Mande, Niger-Congo
 Swahili; Bantu, Niger-Congo
 Swedish; Germanic, Indo-European
 Tagalog; Malayo-Polynesian, Austronesian
 Tagbana; Gur (= Voltaic), Niger-Congo
 Taiwanese; Southern Min, Sino-Tibetan
 Takelma (+); Penutian
 Tamang; Tibeto-Burman, Sino-Tibetan
 Tamazight; Berber, Afroasiatic
 Tamil; Dravidian, Elamo-Dravidian
 Tarahumara; Uto-Aztecan, Amerind
 Tariana; North Arawak, Arawakan

Tatar; Turkic, Altaic
 Tayo CF; French-based creole
 Tchien Krahn *see* Krahn
 Telugu; Dravidian, Elamo-Dravidian
 Tepo; Kru, Niger-Congo
 Teso; Nilotic, Nilo-Saharan
 Thai (Siamese); Daic, Austric
 Thompson; Salish, Almosan-Keresiouan
 Tibetan; Tibeto-Burman, Sino-Tibetan
 Tigrinya; Semitic, Afroasiatic
 To'aba'ita (Toqabaqita); Oceanic, Austronesian
 Tok Pisin PE (or CE); English-based creole
 Tondano; Celebes, Malayo-Polynesian
 Tonga; Bantu, Niger-Congo
 Tonga-Inhambane; Bantu, Niger-Congo
 Tongan; Oceanic, Austronesian
 Toqabaqita *see* To'aba'ita
 Trique; Oto-Manguean, Amerind
 Trukese; Oceanic, Malayo-Polynesian
 Tsonga; Bantu, Niger-Congo
 Tswana (Setswana); Bantu, Niger-Congo
 Tunica; Gulf, Penutian
 Turkana; Nilotic, Nilo-Saharan
 Turkish; Turkic, Altaic
 Turku PA; Arabic-based pidgin
 Twi (Akan); Kwa, Niger-Congo
 Tyurama; Gur (= Voltaic), Niger-Congo
 Tzotzil; Mayan, Penutian
 Ubykh (Ubyx); Northwest, Caucasian
 Udmurt; Finnic, Finno-Ugric
 Ulithian; Oceanic, Malayo-Polynesian
 Umbundu; Bantu, Niger-Congo
 Urdu; Indo-Iranian, Indo-European
 Ûsàk Èdèt; Kwa, Niger-Congo
 Usan; Numagenan, Trans-New Guinea
 Vagala; Gur (= Voltaic), Niger-Congo
 Vai; Mande, Niger-Congo
 Vangunu; Oceanic, Austronesian
 Vata; Kru, Niger-Congo
 Venda; Bantu, Niger-Congo
 Vietnamese; Mon-Khmer, Austroasiatic
 Waata (Oromo dialect); Cushitic, Afroasiatic
 Waŋkumara; Karnic, Pama-Nyungan
 Wapa (Jukun dialect); Jukunoid, Niger-Congo

Warao; Paezan (isolate?)
 Wari' (Pakaas Novos); Chapacuran, Arawakan
 Waropen; Eastern, Malayo-Polynesian
 Washo; Hokan, Northern Amerind
 Welsh; Celtic, Indo-European
 West African PE; English-based pidgin
 Wichita; Caddoan, Keresiouan
 Wobé; Kru, Niger-Congo
 Wolof; West Atlantic, Niger-Congo
 Xdi; Chadic, Afroasiatic
 Xhosa; Bantu, Niger-Congo
 Yabem (Yaben); Madang-Adelbert Range, Trans-New Guinea
 Yagaria; Gorokan, Trans-New Guinea
 Yagua; Peba-Yaguan, isolate
 Yankunytjatjara; Pama-Nyungan
 Yao Samsao; Sino-Tibetan
 Yaqui; Taracahitic, Uto-Aztecan
 Yatye; Central Niger, Niger-Congo
 Yessan-Mayo (Mayo); Sepik, Sepik-Ramu
 Yindjibarndi; South-West, Pama-Nyungan
 Yolngu; Pama-Nyungan
 Yoruba; Kwa, Niger-Congo
 Yosondúa; Mixtecan, Oto-Manguean
 Yucatec; Mayan, Penutian
 Zabana; Oceanic, Austronesian
 Zande; Ubangian, Niger-Congo
 Zulu; Bantu, Niger-Congo
 Zway; Semitic, Afroasiatic

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