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GENERAL EDITORS: Ronnie Cann, *University of Edinburgh*; William Croft, *University of New Mexico*; Martin Haspelmath, *Max Planck Institute for Evolutionary Anthropology*; Nicholas Evans, *University of Melbourne*; Anna Siewierska, *University of Lancaster*

Adpositions

CLAUDE HAGÈGE

(Collège de France, Paris)

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Contents

Abbreviations

A	agent
ABESS	abessive
ABL	ablative
ACC	accusative
ACMK	adnominal complement marker
ACT	active
ADJ	adjective
ADJM	adjectival morpheme
ADJZ	adjectivizer
Adp	adposition
Adp-phrase	adpositional phrase
ADV	adverbial
AFF	affective
AGMK	agent marker
ALL	allative
AMK	attributive marker
AN	anaphoric
APPL	applicative
APPR	apprehensive
APUDESS	apudessive
ART	article
ASP	aspect
ASS	assertive
ATMK	actor topic marker
ATTR	attributive
AUG	augmented
AUX	auxiliary
AV	aversive
AVRS	aversitive
AVT	avertive

BEN	benefactive
CAUS	causal
CHOR	chorophoric
CIRC	circumstantial
CJ	conjunction
CL	classifier (1–15 in Bantu languages)
CMPR	comparative
COLL	collective
COM	comitative
COMM	common (masculine and feminine) gender
COMPL	completive aspect
Complex Adp	complex adposition
Complex Po	complex postposition
Complex Pr	complex preposition
Compound Adp	compound adposition
COND	conditional
CONN	connective
CONT	continuative
CPLCS	complementing case
CSC	consecutive
CSTR.ST	construct state
D	dual
DAT	dative
DEC	deceased
DEF	definite
DEM	demonstrative
DEPR	depredicative
DES	desiderative
DEV	deventive
DIM	diminutive
DIR	directional
DIST	distal
DO	direct object
DRCT	direct
DS	different subject marker

DUR	durative
ELAT	elative
EMPH	emphatic
EQU	equative
F	feminine
FACT	factual
FCT	factitive
FLAT	class marker for flat objects
FOC	focalizer
FOR	formal
FR	frustrative
FUT	future
FV	favouritive
GEN	genitive
GER.MK	gerund marker
HAB	habitual
HON	honorific
IC	instrumental complement
IF	imperfect
ILL	illative
IM	instrument marker
IMM	immediate
IMP	imperative
INCEPT	inceptive
INACT	inactive
INCL	inclusive
IND	indicative
INDEF	indefinite
INESS	inessive
INF	infinitive
INFOR	informal
INFR	inferred
INSTR	instrumental/instrumentive
INT	intensifier
INTERR	interrogative

INV	involuntary
IO	indirect object
IPF	imperfect
IPFT	imperfective
IRASC	irascitive
LIG	ligative
LM	linking morpheme
LOC	locative
LOC.GEN	locative genitive
M	masculine
MK	marker
MOD	modal
MUT.CONS	mutant consonant
N	noun
NARR	narrative marker
NEG	negative
NF	non feminine
NL	nominal
NOM	nominative
NON POSS	non-possessed
NP	noun phrase
NSAM	new situation aspect marker
Nt	neuter
NTP	non-topic
NZR	nominalizer
O	object
OBESS	obessive
OBL	oblique
OE	old English
OMK	object marker
P	patient
PAP	Proof by Anachrony Principle
PART	participle
PARTV	partitive
PASS	passive

PAUS	pausal
p.c.	personal communication
PERT	pertentive
PF	perfect
PFT	perfective
PL	plural
PMK	patient marker
Po	postposition
POL	polite form
POS	positive
POSS	possessive
PQ	polar question
Pr	preposition
PRCT	precontemporal
PRD	predicative
PREPR	preprefix
PREV	preverb
PRG	progressive
PRN	pronoun
PROL	prolative
PROX	proximal
PRPR	proprietive
PRS	present
PST	past
PTMK	patient topic marker
PURP	purposive
REAL	realis
REC	recent
REFL	reflexive
REL	relative pronoun
REM	remote
REP	reported
RES	resultative
RLTVZ	relativizer
ROB	roborative

RP	relative pronoun
S	subject
SBJ	subjunctive
SEQU	sequence
SF	subject focus
SG	singular
SP	space
SPC	spatial complement
SPEC	specifier
SPH	spherical
SPMK	space marker
SPTMK	space topic marker
SS	same subject
STR	stressing morpheme
SUB	subordinator
SUF	suffix
SUMK	subject marker
SUP	supine
SUR	suressive
TA	tense/aspect
TMK	topic marker
TOP	topicalizer
TPC	temporal complement
TRZ	transitivizer
TR	transitive
V	verb
VC	voice
VE	verbal ending
VERT	vertical
VMK	verbal marker
VNMK	verbal noun marker
VOC	vocative
VP	verb-phrase
<X>	indicates that X is infixed within a root

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Introduction

1.1 Definition and brief illustration of adpositions

Adpositions (henceforth Adps) may be defined as grammatical tools which mark the relationship between two parts of a sentence: one is the element which an adposition governs. It is traditionally called its complement and is mostly represented by a noun or noun-like word or phrase. It will be called here the governed term. The other part is an entity which either functions as the predicate of this sentence, or is a non-predicative noun. Adpositions mark, therefore, the fact that, from the syntactic point of view, their governed term depends on a head. Thus, for example, in the last part of the foregoing sentence, *a head*, that is the governed term of *on*, will be said, by many linguists, to depend on *depends*, and *on* will be said to be the preposition which marks this dependency. In terms of position, most English adpositions are **pre**positions, but other languages have **post**positions, or both, and there are other types as well.

Adpositions exist in the vast majority of human languages. In most languages their usefulness makes them quite recurrent in everyday speech as well as in written texts. This is attested, for example, at least if we consider English, by the fact that the preceding paragraph, according to my way of counting, contains ten Adps.

1.2 On some aspects of the present state of research on Adps

It so happens that linguists, so far, have not deemed it necessary to deal with Adps in a research project exclusively devoted to them. We read, for example, in a recent work:

Adpositions [...] are a neglected class in typological studies: most typologies of part-of-speech systems do not even mention them, or then only casually, as "case markers", or as "syntactic adverbializers". There have been studies on the semantics of specific adpositions ("in", "on", "over", etc.), but no considerations on the adpositional class as a whole. After all, why are there adpositions? Why do some languages have a special group of adpositions, while others do not? These questions have, to the best of my knowledge, never been addressed in the literature.   (Meira 2004: 223)

Despite this situation, it is likely that many linguists would not be reluctant to grant that Adps are an almost universal part of speech, and that they deserve, as such, to be thoroughly studied as a specific topic. What works on Adps, then, are available today? A great number, actually, in recent years. But most of those works focus on spatial prepositions, in a cognitive semantics perspective. I will begin with an inquiry into some works written in France, where there is a traditional interest in prepositions, and then extend the inquiry to other countries.

There is a 429-page book on Chinese prepositions (Hagège 1975) with a typological inquiry about adpositions in many other languages. There are books on spatial prepositions (Vandeloise 1991) and on "abstract" (Cadiot 1997) prepositions, both limited to French. There is also a special issue (1997) of *Faits de langue* (a journal studying what its title says) (Paris: Ophrys), whose purpose is to examine, in terms of parts of speech, the status of prepositions (but no other type of Adp). We can also mention a collective work (Rémi-Giraud and Roman 1998) on *circonstants* (the French term for what are called "adverbials" in English: cf. Sections 4.1.2.1 and 5.3.1). It is immediately apparent that these works treat only a part of the topic I am interested in here: either only prepositions (presumably because they pre-dominate in European languages) in one or a few individual languages, or only one of their functions (albeit an important one).

In other countries, besides Cuyckens *et al.* 2005 and 2006, and Hewson and Bubenik 2006, we first find two collective books. One of them (Feigenbaum and Kurzon (eds) 2002) treats theoretical or specific problems of prepositions in English, French, and Hebrew, while the other (Kurzon and Adler (eds) 2008) offers "pragmatic, semantic, and syntactic perspectives" on Adps in these three languages, and in Armenian, Korean, Russian, Turkic languages, and Ukrainian. Second, we find general or encyclopaedic works, whose contributors come from, or are specialists of, many parts of the world, and aim at covering subjects as exhaustively as possible.

There is hardly more to be found there. One such book is the Pergamon *Encyclopedia of Languages and Linguistics* (Oxford: 1994), in which we find an article on "Prepositions and prepositional phrases", but no article on Adps in general. Another is the international handbook on *Language Typology and Language Universals* (Berlin: Walter de Gruyter, 2001), whose volume 1 contains a five-page article on "Lokalkasus und Adpositionen", and volume 2 an article on object-marking, another one on creolization which has a section on "serial verbs and prepositions", another one on grammaticalization, which has a section on lexemes as diachronic sources of Adps, and a final one on Turkic languages, which contains the only reference, in the whole of volume 2, to postpositions, as illustrated by Osmanli Turkish. As in the Pergamon

Encyclopedia, there is no reference to Adps, nor to relators (cf. Section 2.6.1 here), although the article on grammaticalization uses this term.

The third collective and encyclopaedic work to be cited here is the *World Atlas of Language Structure* (Oxford: Oxford University Press, 2005). All the articles in this book are limited to two pages, and followed by maps showing the geographical distribution of facts studied in the texts. The section entitled "Case" contains four articles in which, although they follow the common practice of subsuming both case-affixes and Adps under the syntactic label "case", there is practically no mention, other than quite cursory, of Adps, and no choice of languages illustrating them. Two of the articles in the section entitled "Word Order", namely "Order of Adposition and Noun-phrase" (Dryer 2005*b*: 346–9) and "Relationship between the Order of Object and Verb and the Order of Adposition and Noun-phrase" (Dryer 2005*c*: 386–9), mention Adps explicitly. The first one is devoted to the geographical distribution of prepositions and postpositions, very briefly defined as far as other features than positional are concerned; adopting a position which has been mine ever since Hagège 1975, it considers that when verbs or nouns co-exist, in a language, with words similar to them, and historically derived from them, that are candidates for Adps, this is not a sufficient reason not to treat these words as Adps.

The second article takes over the results of the classical study (cf. Hagège 1982: 54–9, and here Sections 3.4.4 and 3.4.5) of the relationship between OV or VO word orders in a language and the presence, there, of postpositions and prepositions respectively. Only in the section on "Articles and Pronouns" do we find, in an article treating "Person Marking on Adpositions" (Bakker 2005: 198–201), a definition, in five lines, of some of the features of Adps. But this article treats as case clitics certain morphemes to which it denies the status of Adp, while Dryer, in the same collective volume, treats these morphemes as Adps. This shows that we are in need of sound criteria to distinguish case affixes/clitics from Adps (cf. section 2.2.2).

There are also, of course, countless references to Adps in books and articles studying, among other topics, the various morphological strategies used by languages to mark dependency between the parts of a sentence, the typology of case-marking, the syntactic relationships between predicates and complements, the phenomena related to word-order, the semantic structure of several preposition systems, or the various semantic and cognitive domains where Adps play a major role. As far as these domains are concerned, there are many works on the linguistic expression of space, essentially by spatial Adps, and this makes space one of the best known among the fields of human cognition. But I don't know of any booklength work in which Adps are

studied for themselves by a single author in a very broad crosslinguistic perspective.

1.3 The scope and aims of this book

Given the above considerations, it seems useful to propose, on the problem of Adps, a book meeting the requirements not yet met by present research on morphology, syntax, and semantics. In order to meet these requirements, the present book studies the general characteristics, morphological features, syntactic functions, and semantic and cognitive properties, not only of certain subsets of Adps like those which express the core relations of agent, patient, and beneficiary, or those which mark space, time, accompaniment, instrument, or other complements, but of the whole set of Adps.

This book is therefore conceived of as a participation to typological research, which I have done for more than thirty years. Typology is today among the leading domains in language sciences. It even interests the disciples of early generative grammarians, although many of the latter used to think that, as expressed by Chomsky,

the most that can be expected [from language typology and universals research] is the discovery of statistical tendencies, such as those presented by Greenberg 1963.
(Chomsky 1965: 118)

I do not share Chomsky's reserves on "statistical tendencies". But I try to go beyond a merely statistical work. A thorough study of Adps has much to teach us about the essential properties of human languages.

Moreover, by writing a booklength monograph on Adps, I have an important theoretical consideration in mind. Adps are a function-marking device, and as such, they perform the same syntactic function as case affixes. Therefore, the reason why nobody, in the second half of the twentieth century, has presented a typological monograph on Adps is not hard to find: it is, precisely, this syntactic identity between Adps and case affixes. But this position is open to discussion. First, Adps are much more individualized, and crosslinguistically widespread, than case affixes. Second, I do not consider that syntactic criteria are the only ones, or even the only important ones, that deserve to be taken into account. In other words, a theoretical conception of morphology as a nuclear component of languages underlies the present book (cf. Sections 2.2.2.4.b, 2.2.2.4.g and Chapter 6).

1.4 The book's approach

It follows from the foregoing that this book on Adps has, among others, two characteristics. These characteristics have long been those of my works in linguistics, and they comply with the requirements and practice of contemporary research in linguistic typology:

(i)   First, I adopt here a functionalist, rather than formalist, framework. More precisely, I am referring to the Three Viewpoints Theory, which I have been developing for some time in a number of published books and articles (cf., especially, Hagège 1980, 1982, 1990*b*). This particular branch of functionalism views the sentences produced by a speaker and interpreted by a hearer as scientific entities to which three viewpoints or strategies can be applied: one morphological and syntactic, the other semantic-referential and cognitive, and the third one information-hierarchical and pragmatic.

(ii) Second, in order to study Adps as exhaustively as possible, I use a corpus of 434 languages (cf. the Index of Languages). To reduce the risk of insufficient coverage of linguistic diversity, these languages cover the whole world and all known linguistic stocks, that is (combining, for practical purposes, genetic and geographic classifications) African, Amerindian, Australian, Austronesian, Indo-European and other Eurasian languages (Altaic, Caucasian, Chukotko-Kamchatkan, Dravidian, Uralic), Papuan, Sino-Tibetan and other East-Asian languages.

1.5 The book's argument

Adps do not always appear in the shortest types of sentences. Their knowledge and grammatical use are not acquired at an early stage of language learning by children. This book intends to show that, despite these constraints, Adps can be considered a fundamental part of speech. The reason is that using lexemes only does not suffice to build a sentence, at least one which is recognized as complete and is not reduced to a one-word exclamation or interrogation. Certain tools are necessary to link lexemes to one another and to the whole sentence, thereby setting up dependency relationships.

One could say that any kind of function marker can do this job. Word-order, for instance, is by itself, among many other uses, a function marker, in fact the simplest and most readily available one, since in one of its functions it serves the same purpose in all languages: to mark, by the very position of

words in relation to one another, which one is head and which one is dependent (when they are not homofunctional elements one of which appears as an apposition to the other). One could also recall that in certain languages, such as some of those in the Great Lakes district and the northwest of the United States, many of the various affixes appearing inside the verb phrase serve to mark adverbial meanings which would be expressed by adpositional phrases in English (cf. Section 2.4.1.3.b). Such languages make up a part of those (admittedly a minority) that do not have Adps. One cannot deny, nevertheless, that like languages with Adps, they also mark dependency relationships, simply by resorting to other means.

We also know that there are languages with just one Adp, which serves to form complex function markers with many different meanings, other adverbial meanings being expressed by verbs (cf. Section 3.3.2.2.a). Other means of function-marking also exist, whose details will appear in the book. Thus, it would seem that Adps as such are not an indispensable tool of all languages. The only requirement is that the job they do, that is function marking, should be done anyway.

The answer to this seeming objections is simple: Adps are the most frequent type of function marker, and other tools are less widespread. It will be shown (cf. Section 2.2.2) that between adpositions and the main other device of function marking, namely case affixes, there are many differences in all domains. Furthermore, Adps constitute, from the semantic and cognitive points of view, a complex set of interrelated meanings, which are no less refined than those of lexemes, and have much to teach us about important aspects of language (cf. Chapter 5).

1.6 Intended readership

This book is not exclusively written for professional linguists. Admittedly, its scope, aims, approach, and argument seem to make it a reading primarily meant for typologists, and it is true that the latter are an important part of the intended readership. However, it is, at least in my experience, a commonly observed fact that the term *preposition*, which refers to a type of Adp that is the main or the only one in most West European languages, is not uninterpretable, or unknown, to average speakers, despite its technical acceptation. Some of them use it when they make metalinguistic remarks on certain features of common usage. Furthermore, language teachers may be interested in the fact, stressed in this book, that many of the mistakes made by people studying a foreign language are Adps mistakes. To mention two examples given in the book (cf. Section 5.2.1), I have often heard, among French students whose

knowledge of English was not too poor, such sentences as *let me call your attention on one fact* or *he is not attracted by her*: these ways of speaking are probably due to the pressure of the French prepositions used in these contexts. The study of the various semantic properties of Adps, and of the particular uses of an Adp which, in a language that someone is studying, seems, or is claimed, to have the same meaning as the one by which s/he translates it into his/her mother-tongue, has a pedagogical usefulness, and should not appear to language teachers as a pointless technical refinement.

Furthermore, there are, among the reading public, a number of persons for whom Adps are not a mere toy for grammarians. Some distinguished minds go even further. Bertrand Russell claimed to have legitimized verbs *and* prepositions, in contradistinction with the substantialist tradition, originating with Aristotle and later taken over by mediaeval nominalists. This tradition has always considered nouns and adjectives, which express substance and attribute respectively, as the most important word-classes, and thus neglected verbs and prepositions. Russell was of the opinion that the omission of verbs and prepositions

has had a very great effect upon philosophy; it is hardly too much to say that most metaphysics, since Spinoza, has been largely determined by it.   (Russell 1912: 219)

As for Gertrude Stein, she was possessed of a passion for linguistic restructuring similar to her devotion to analytical cubism. This made her reject nouns, finding them hopelessly bogged down in referentiality: she wrote that a noun is "unfortunately so completely the name of something!" (Stein 1967); and adjectives, she thought, are obliged to express the properties of this something. Stein was delighted, on the other hand, by verbs, and, above all, by conjunctions and prepositions; she attempted to draw poetic effects from these linking words, particularly prepositions, patient workers that do much more than simply designate (as will appear in Chapter 5), and without which she said it would not be possible to build sentences.

This being said, and granting that many people, beyond specialists of language and languages, and of social sciences, may feel an interest in a work devoted to Adps, it remains that the main readers who might be interested in this book and want to confront its content with their own research are professional linguists dealing with typology. To these, however, other linguists can be added, who are not necessarily specialists in language typology, and even non-linguists who work in other social sciences and sciences of the mind. It seems to me that all this constitutes a fairly broad potential public.

2

Towards a comprehensive characterization of adpositions

The purpose of this chapter is to provide a precise and full characterization of Adps, by showing what they are, what they are not, and what they do, synchronically and diachronically. Therefore, I will first propose a general definition of Adps (2.1), then I will study the relationship between Adps and case affixes (2.2). The following section will characterize Adps with respect to the term they govern (2.3). I will then present word-types that might be mistaken for Adps (2.4), and Adps as sources of new units (2.5). Lastly, in the light of all these considerations, I will justify the term "adposition" in relation to the other available terms (2.6).

2.1 A general definition of Adps

Adps can generally be defined as in (1):

(1)   An *adposition* (Adp) is an unanalysable or analysable grammatical word constituting an *adpositional phrase* (Adp-phrase) with a term that it puts in relationship, like case affixes, with another linguistic unit, by marking the grammatical and semantic links between them.

This linguistic unit, called the *head* of the Adp-phrase, is, in most situations, a verb, a noun, or an adjective. The term thus related by the Adp to a head, and functioning as the head's complement, is the *governed term* of the Adp. It is generally located, depending on the language, either before the Adp, in which case the Adp is a *postposition* (Po) and the whole phrase is a *postpositional phrase*, or after it, in which case the Adp is a *preposition* (Pr) and the whole phrase is a *prepositional phrase*, although there are other less frequent possibilities. In many languages, a number of Adps, most of them or all of them, are derived from verbs or nouns. A simple example is:

(2)   *John lives in Venice.*

In (2), *in* is a Pr, *Venice* is its governed term, *in Venice* is a prepositional phrase, and *lives* is the head.

These elementary defining features of Adps and Adp-phrases can be summed up as follows:

(i)   Adp + governed term (word order irrelevant) → Adp-phrase
(ii) governed term of Adp:
    (a) before the Adp → Adp = Po
    (b) after the Adp → Adp = Pr
(iii) head of Adp-phrase = verb, noun, adjective

Even if linguists dealing with typology may take example (2) and the above list as first characterizations, everyone will agree that more is required if we are to fully appreciate the properties by which Adps constitute an important problem in linguistics. Therefore, in the following I will successively study:

- the relationship between Adps and cases (Section 2.2);
- the link between Adps and their governed term (Section 2.3);
- the difference between Adps and some word-types that are often confused with them (Section 2.4);
- the contribution of Adps and Adp-phrases to the creation of new units (Section 2.5);
- some arguments justifying, given the above, the term *adposition* (Section 2.6).

2.2 On the relationship between Adps and case affixes

In this section, I will successively examine various case-marking strategies that can be compared with Adps and case affixes (2.2.1), then I will compare the main properties of Adps with those of case affixes (2.2.2), and lastly, I will study complex Adps, comprising both an Adp and a case affix (2.2.3).

2.2.1 *Common and rare strategies serving the same function as Adps and case affixes*

Adps and case affixes are the main and most widespread case-marking strategies in human languages. But there are several others, which deserve to be at least briefly recalled, namely word-order (2.2.1.1), stem changes (2.2.1.2), and tonal phenomena (2.2.1.3). One general fact must, however, be stressed: here as in many other parts of grammar, languages may also combine two or more of these strategies.

2.2.1.1 *Word order*   To mention one of the main functional uses of word order, let us recall that in French and English the positions of noun-phrases before and after a transitive verb are the common marks, respectively, of the subject and direct object functions of these noun-phrases. Moreover, in English sentences with a transitive verb, a direct object, and an indirect object, the usual position of the indirect object[1] is before the direct object, although it can also follow it, in which case its function is indicated both by its position and the use of a preposition. These well-known facts are illustrated in (3a–f). Note that there is no total equivalence between the postverbal and the extraposed status of the indirect object: it appears by comparing (3e) and (3f) that the word *right* may be used when there is an Adp-phrase, while it is ruled out when the beneficiary appears in immediately postverbal position. This shows from the outset that Adp-phrases do not have the same properties as noun-phrases:

(3) a. *the boy saw **the dog***

   b. *the dog saw **the boy***

   c. *the man buys **the boy an apple***

   d. *the man buys **an apple for the boy***

   e. *he gave the book **right to John***

   f. * *he gave **right John** the book*

2.2.1.2 *Stem changes by consonant and vowel mutations*   Certain languages use various types of stem changes to indicate syntactic function. One of these changes is the alternation between consonants. In the present section I will show that this process, which is not uncommon when it serves other functions, is found with this function in some Celtic, Mande, Tupi, and Austronesian languages, as well as in Nivkh, an isolate language of Northeastern Russia, and in Iwaidjan, an exceptional case, since consonant mutation is otherwise unknown among Australian languages, of which it constitutes a sub-family. I will give examples from these languages. I will also mention an

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[1] I am here following English terminology, although it is debatable, since the attributive complement which is located in English between the verb and the object is not indirect, but direct, to the extent that it is not marked by any Adp, unlike its extraposed equivalent. In fact the designation, introduced by Relational Grammar, of attributive complements as "indirect", is Anglo-centric: in another version of sentences like

i. *I gave John the book,*

i.e.

ii. *I gave the book to John,*

the attributive complement is marked *in English* by the Pr as an indirect complement. Admittedly, this structure is also attested in other languages, for example Fulani, spoken Indonesian, several Bantu languages. But it is very far from universal.

uncommon case of function-marking vowel mutation in two Western Nilotic languages.

2.2.1.2.a **Welsh**   In Welsh, initial consonant mutations may have a syntactic function. Soft mutation, which changes unvoiced consonants to voiced ones or produces other changes (whose detail is given in Section 3.3.3.1), is obligatory after twelve Pr's, but is also required on the object of an inflected verb, as in (4a), and on subjects or objects separated from a preceding verb by an intervening word or phrase, as in (4b). Nasal mutation, which replaces certain initial plosive consonants with the corresponding nasals, is required, like the third type, i.e. aspirate mutation, after certain morphemes, for instance the first person singular possessive adjective *fy* "my", as illustrated in (4c), where we see the verbo-nominal use of a transitive verb following a possessive adjective, a structure corresponding to English sentences with a transitive verb and an object pronoun:

(4)   WELSH (Celtic, Indo-European, United Kingdom) (Bowen and Rhys Jones 1960: 74, 81, 167)

    a. *gwel-odd   geffyl*
       see-PST.3SG horse
       'he saw a horse'

    b. *ymae   yno   ddigon o bobl*
       be.3SG there many   of people
       'there are many people there'

    c. *ymae ef   yn   fy   ngweld-i*
       be.3SG 3SG PRD POSS.1SG seeing-1SG
       'he sees me' (lit. 'he is my seeing').

ngweld in (4c) is the result of the nasal mutation of the verb meaning "to see", whose unmutated form, *gwel(d)*, appears in (4a); we notice, on the other side, mutated forms explained above, i.e. that of *ceffyl* "horse" in (4a), and those of *digon* "many" and *pobl* "people" in (4b). Thus, in Welsh, mutations are used, in addition to their other occurrences, to mark syntactic functions.

2.2.1.2.b **Kpelle**   Kpelle exhibits a curious phenomenon, only partly shared by other Mande languages, namely high or low tone initial consonant alternation, by which (cf. Welmers 1962) nasal consonants receive a high or low tone, while unvoiced plosives and fricatives become voiced and receive either a high tone + prenasalization, or a low tone + voicing. Low tone + voicing of unvoiced plosives and fricatives is the main marking device of nouns when they are heads of a noun-phrase, as in (5a), of adjectives when used as predicates with a third person singular subject, as in (5b) (where this very

mutation includes person-marking), and of the positive and negative forms of predicative auxiliaries (also with a third person singular subject), whether imperfective, as in (5c.ii), or perfective, as in (5d.ii), a typical phenomenon of Mande languages (in the examples below mid tones are unmarked; the (-*i*) and (-*n*-)in (5a), (5b), and (5d) are optional elements):

(5)   KPELLE (Western Mande, Mande, Niger-Congo, Liberia) (Manessy 1964: 120–1)

 a. i. *pέrε* '(a) house'

   ii. `*bέrε(î)* 'the house'

 b. i. *pɔlɔ* 'old'

   ii. `*bɔlɔ(î)* 'he is old'
     be.old.3SG.IPFT

 c. i. *dí ká   páì*
     3PL IPFT.POS come
     'they are coming'

   ii. `*gá   páì*
     3SG.IPFT.POS come
     'he is coming'

 d. i. *dí fé pá(n)î*
     3PL PFT.NEG come
     'they did not come'

   ii. `*vé   pá(n)î*
     3SG.PFT.NEG come
     'he did not come'

2.2.1.2.c Guarani In Guarani some fifty nouns and half a score of adjectives exhibit a special type of consonant mutation: the initial *t-* of these words, which appears when they are used on their own or as the subject or complement of a verb, can be replaced either by an *h-* or by an *r-*.

The result in both cases is a full sentence with a static meaning and a single participant, expressed by a person marker of the inactive pronoun paradigm: this participant is a third person subject when the replacing consonant is an *h*, and a first person singular, or a first person inclusive plural, when it is an *r*. These facts are illustrated by (6):

(6)   GUARANI (Tupi-Guarani, Tupian, Paraguay) (Guasch 1956: 67)

 a. i. *tasy*
    'sickness'

    ii. *hasy*
       MUT.CONS.3SG.INACT.be.sick
       'he is sick'

    iii. *xe*   *rasy*
       1SG.INACT MUT.CONS.1SG.INACT.be.sick
       'I am sick'

  b. i. *tesãi* 'good health'

    ii. *hesãi*
       MUT.CONS.3SG.INACT.be.in.good.health
       'he is in good health'

    iii. *ore*   *resãi*
       1PL.INCL.INACT MUT.CONS.1PL.INCL.INACT.
                        be.in.good.health
       'we(INCL) are in good health'

2.2.1.2.d Nias A further case is represented by an Austronesian language, Nias, in which, according to Dryer,

there is a process of initial mutation that typically involves changing the initial consonant to a different consonant [or] the addition of a prefixal consonant. […] Among a variety of uses, the unmutated forms are used as ergative case forms, the mutated as absolutives. (Dryer 2005a: 210)

Dryer takes over an example given by another author:

(7) NIAS (Sundic, Western Malayo-Poynesian, Austronesian, Sumatra, Indonesia) (Brown 2001: 69–70)

unmutated	mutated	
fakhe	*vakhe*	'rice'
tanö	*danö*	'land'
si'o	*zi'o*	'stick'
ete	*nete*	'bridge'

2.2.1.2.e Nivkh Function-marking initial consonant mutation as applied to direct object complements is also found in Nivkh, in which

(i) noun-initial unvoiced and aspirated stops become voiced fricatives when preceded by a stop, a nasal or a vowel appearing as the last phoneme of a dependent noun, as in (8a.ii);

(ii) in transitive verbs voiced and unvoiced initial fricatives, as well as some initial *i-*, *e-*, and *j-*, are transformed into the corresponding unvoiced (or aspirated), or voiced, plosives when preceded by direct objects ending in fricatives and *-r*, or in nasals, as seen in (8b.ii), (8b.iv), and (8b.v);

(iii) other transitive verbs beginning with *i-* undergo internal permutation when in the same position, as seen in (8c), where the object, according to a widespread feature of northeastern Siberian languages, also illustrated by (8b.ii), is incorporated into the verb and thus constitutes with it a verbal compound (here marked, in the transcription, by a hyphen):

(8)   Nɪvᴋʜ (isolate, North-East Russia) (Mattisen 2003: ch. 2)

    a. i. kɔxkɔx-thoŋr
          swan-head
          'swan head'

        ii. ət-zoŋr
           duck-head
           'duck's head'

    b. Nɪvᴋʜ (Krejnovič 1934: 192, 208)

        i. *zu-d'*
          wash-3SG.PST
          'he washed'

        ii. *tər-thu-d'*
          table-wash-3SG.PST
          'he washed the table'

        iii. *p' ətək ro*
           one's father help
           'to help one's father'

        iv. *Seus to*
           Seus help
           'to help Seus'

        v. *ñəŋ do*
          1PL.EXCL help
          'to help us'

    c. i. *in'-d'*
          eat-3SG.PST
          'he ate'

        ii. *t'uz -n'i-d'*
           meat-eat-3SG.PST
           'he ate meat'

2.2.1.2.f **Iwaidja**   In this language the mutation of the root-initial consonant is conditioned by the third person singular possessor of a body part, as shown by the contrast between (9a) and (9b):

(9)   IWAIDJA (Non-Pama Nyungan, Northern Territory, Australia) (Evans
        2000: 102)
        a. *a-mawur*
            3PL-arm
            'their arms'

        b. *bawur*
            3SG.arm
            '(his/her/its) arm'

2.2.1.2.g **Western Nilotic languages**   Finally, a fairly uncommon process of
stem change involves, rather than consonant mutation, internal vowel
change: in two Western Nilotic languages spoken in Sudan, namely Nuer
(Crazzolara 1933: 29) and Dinka (Nebel 1948: 36), vowels within the syllable
nucleus undergo changes that are equivalent to case affixes marking adnom-
inal possessive and inessive.

2.2.1.3 *Case-marking by tone*   Another uncommon strategy, that is case-
marking by tones, is used as the primary one in four Nilo-Saharan languages,
one of which, Maba (Chad), belongs to Maban, and the other three, to the
Nilotic branch of Eastern Sudanic: Shilluk (Sudan), Nandi (Kenya), and
Maasai, where we find such sentences as:

(10)   MAASAI (Nilotic, Eastern Sudanic, Nilo-Saharan, Kenya, Tanzania)
        (Tucker and Mpaayei 1955: 175–6, 216)
        a. *é-ísis*   *il-ayíó-òk*
            3SG-praise.IMPF M.PL-boy.O-PL
            'he praises the boys'

        b. *é-ísis*   *il-áyìò-(ò)k*
            3SG-praise.IMPF M.PL-boy.S-PL
            'the boys praise him'

        c. *ḿme sídái*   *toó-(i)l-áyìò-(ò)k*
            NEG good   for-M.PL-boy-PL
            'it is not good for the boys'

We see here that the tone pattern of the word meaning "boy" is not the same
when this word functions as the object of a transitive verb, as in (10a), and when
it functions as the subject of an active verb (and agent of a passive verb), as in
(10b), or as the governed term of the Adp *toó* (plural form, before a noun in the
plural: cf. Section 3.4.6.3) as in (10c). This shows that in Maasai two methods of
case-marking can be combined, one tonal and the other adpositional:
together they form a Complex Adp, namely a type of Adp to which we will

return in Section 2.2.3.4. Tonal variation is thus an interesting, if rare, function-marking device.

A rare tonal phenomenon, also a syntactic relation marking strategy, is found in Yaka (Bantoid, Benue-Congo, Democratic Republic of Congo). According to Van den Eynde and Kyota (1984), this language uses a tone-lowering morpheme, whose effect is to lower all the tones of verbs and nouns in a sentence. This tonal process applies to verbs when they occur with obligatory complements and to nouns when they occur with obligatory determiners. Other tonal structures are used on verbs and nouns occurring on their own (without complements or determiners), and still others when verbs appear in relative clauses and nouns as determiners. Thus, in Yaka, verbs and nouns are treated in the same way, as far as the tonal structure is concerned, in contexts where:

- a verb or a noun functions as a head that requires a dependent element;
- a verb or a noun itself functions as a dependent element;
- a verb or a noun is neither a head nor a dependent element.

This tonal homology between the syntactic behaviours of verbs and those of nouns is interesting on two counts. First, on a theoretical and typological level, it shows that certain languages do not distinguish, in their morphology (in this case, tonal morphology), between the two main word-classes, verbs and nouns, and treat them in the same way, which suggests that the classical divisions of word-types is to a large extent artificial. Second, for the purpose of the present study, the Yaka tonal strategy shows that any method, whatever its rarity, may be used by a language to mark syntactic relationships. Adpositions, and to a lesser extent case affixes, are simply the most widespread ones.

Tonal variation is also used, in African languages among others, to form connective Adps, as shown by example 90b in Chapter 3. This example from Yoruba illustrates the fact that Adps themselves can take a tonal form, at least in certain language families.

2.2.1.4 *Conclusion*   Sections 2.2.1.1–2.2.1.3 have shown that various methods other than case affixes and Adps can also serve to express the main syntactic functions. The relative rarity of these methods is interesting, since it shows that a few languages can reach certain limits while still sharing with all other languages the same general properties. Some might suggest an explanation for this rarity, for example by saying that consonant and vowel mutations (Sections 2.2.1.2.a–g) and variations of tonal structures (Section 2.2.1.3), for example, are complex phenomena. It is not certain that this notion could be backed, in the present case, by cogent evidence. What remains true is that languages exhibiting such rare phenomena may be taken to be **revealing languages** (Hagège 1993: 3–4).

2.2.2 *A contrastive examination of Adps and case affixes*

In this section I will show that despite the vagueness of the difference between Adps and case affixes (2.2.2.1) and provided other phenomena—such as adpositional clitics (2.2.2.2)—are clearly identified as distinct, one can try to propose some reliable criteria to distinguish case affixes from Adps. I will first characterize case affixes (2.2.2.3) and then compare them with Adps (2.2.2.4).

2.2.2.1 Vagueness of the distinction between Adps and case affixes   Adps are considered to be case-coding forms. To understand this terminology, one must recall that the notion of case is commonly used by linguists to refer to the main syntactic functions of non-predicative noun-phrases and functionally similar units, as shown in (11):

(11)   The main syntactic functions of non-predicative noun-phrases
    a. arguments of the predicate, or core, or grammatical, arguments, i.e.
        i. subject
        ii. object,
        iii. indirect object
    b. adnominal complements (whose semantic content is examined with core meanings in Section 5.3.1 and Table 5.1)
    c. non-core, or peripheral, arguments, i.e.
        i. spatio-temporal complements, such as those marking inessive, allative, or ablative
        ii. non-spatio-temporal complements, such as comitative, comparative, etc.

If "case" is defined as in (11), one may say that languages use various tools to code case. But the notion of case is ambiguous, since "case" also refers to one of these tools, that is case affixes. If we retain this acceptation here, the problem is whether the two most widespread strategies, namely Adps and case affixes, have as many points in common as might be claimed, given that they serve the same functions. The functional homology between them is often stressed, for example in Zwicky's (1992: 370) statement: "Everything you can do with Adps you can do with case inflections, and vice versa." But this author also writes in the same article:

the equivalence of (certain) inflectional affixes and (certain) independent words is taken so much for granted that it is hard to find a clear statement of the principle, a situation that probably follows sometimes from believing that there is in fact no clear dividing line between the phenomena of syntax and the phenomena of morphology, and surely results other times simply from focusing on syntactic rather than morphological issues.   (Zwicky 1992: 369)

The present book attempts to do justice both to morphology and syntax: it includes both a chapter devoted to the morphological aspects of Adps (Chapter 3) and one devoted to the syntax of Adps and Adp-phrases (Chapter 4). The morphological aspects of the relationship between Adps and case affixes are not sufficiently taken into account in the literature, and this might be the reason why there is as yet no clear statement of the difference between these two function-marking strategies. This is further demonstrated by the opinions expressed by various authors, who stress the *functional and semantic* homology between inflectional cases and Adps. Thus one of the important ideas introduced into linguistics by Pott (1827), who was very interested in Prs (cf. also Brøndal 1950: 5), is simply, such as reported by Hjelmslev (1935–1937, 2: 42), the general hypothesis that there is "an intrinsic relationship and a possible transmission between case and preposition systems". Twelve years later, Hjelmslev claimed, without further details, that

cases encompass the same semantic category as prepositions and the difference lies in the subdivision of this category [cases] (i.e. the number of its members and the way they are organized from the paradigmatic viewpoint), rather than in its boundaries.

(Hjelmslev 1949: 421)

This is an interesting observation, but more is required if we are to do justice to this still insufficiently clarified distinction.

2.2.2.2 **Adpositional clitics**   One of the reasons for the vagueness of the distinctive criteria proposed so far to distinguish Adps from case affixes might simply be the very vagueness of this distinction itself in the actuality of languages. In general, we may say that, while Adps are grammatical words in construction with the whole unit they govern, case affixes are morphologically bound to one or several elements of this unit. But the case-markers examined here as being different from Adps are not always suffixes. They may also be clitics. Case-markers are said to be adpositional clitics when they attach phonologically, as unstressed elements, to some stressed word, the first or the last one in the noun-phrase, whatever this word's status and nature. Adpositional clitics are often a result of the cliticization of Adps, a diachronic process which attaches the clitic element to a host member of the noun-phrase rather than to the noun itself, as in (12):

(12)   NGANKIKURUNGKURR (Southern Daly, Australian) (Hoddinott and
        Kofod 1988: 72)
        *kalla   ngayi yedi tye   yeningkisyi yaga-**nide***
        mother 1SG   go   PST canoe   DEM-in
        'my mother came in that canoe'

Adpositional clitics are less frequent than other types of clitics, which are essentially pronominal and modal (on clitics, cf. Nevis 1988). Adpositional clitics can be prepositional (proclitics) or postpositional (enclitics); both are fairly frequent in the languages of the world. Less often, they are circumpositional. Examples of prepositional clitics are Amharic and Russian; the latter is illustrated in (13):

(13)   RUSSIAN (Slavic, Indo-European, Russia)
    a. *on*   *vs'o*   *proč'ol*   *v*   *našem*
       3.SG.M   everything   read.PFT.PST.M.SG   in   POSS.Nt.SG.LOC
       pis'me
       letter.Nt.SG.LOC
       'he read everything in our letter'

    b. *on*   *vs'o*   *proč'ol*   *v*   *etom*
       3.SG.M   everything   read.PFT.PST.M.SG   in   DEM.Nt.SG.LOC
       pis'me
       letter.Nt.SG.LOC
       'he read everything in this letter'

    c. *on*   *vs'o*   *proč'ol*   *v*   *pis'me*
       3.SG.M   everything   read.PFT.PST.M.SG   in   letter.Nt.SG.LOC
       'he read everything in the letter'

While the Russian prepositional clitic *v* is attached to a noun in (13c), it is attached to a possessive adjective in (13a) and to a demonstrative adjective in (13b). Examples (13a–c) also show that in Russian prepositional clitics can be associated with case suffixes (cf. Section 2.2.3). But in other languages, there is no such association of clitics with case affixes. This is what we observe in Cayuvava, which has prepositional clitics, as in (14), where the host word is an indefinite adjective, and in Ungarinjin and Kunuz Nubian, which both have inessive postpositional clitics, the host word being, respectively, a possessive and an adjective, as shown in (15a) and (15b):

(14)   CAYUVAVA (isolate, Bolivia) (Key 1967: 51)
    ji-ka'reeča   dati
    OBL-other   place
    'in another place'

(15)   a. UNGARINJIN (Wororan, Australian, Australia) (Rumsey 1982: 58)
       *dambun budaga-**ra**
       camp   their-INESS
       'at their camp'

b. Kᴜɴᴜᴢ Nᴜʙɪᴀɴ (Nubian, Eastern Sudanic, Nilo-Saharan, Egypt)
(Abdel-Hafiz 1988: 283)
*esey   kursel-**lo**   uski-takki-s-i*
village old-INESS born-PASS-PST-1SG
'I was born in an old village'

Other examples of postpositional clitics are found in Italic languages, among others those that mark the comitative and that are not clitics when used as Pr. Classical Latin *mecum, tecum, nobiscum, vobiscum,* respectively "with me", "with you", "with us", "with you (PL)" are often cited examples; in addition the Umbrian comitative marker *-ko(m)/-ku(m),* when postposed to its governed term, is also a clitic, as in example (16) (but cf. also example (20) below):

(16)   Uᴍʙʀɪᴀɴ (Buck 1928/1974: 202)
*eru-**kom**   prinuatur   dur   etuto*
3SG-COM assistant.NOM.D two.NOM go.IMP.D
'let the two assistants go with him'

Dryer (2005*a*: 211) also mentions an unusual sort of postpositional clitic found in Somali (Cushitic, Somalia), namely a change in tone on the last syllable of the noun-phrase, to mark the subject, a fact comparable to the tonal structure of nouns which, in association with an Adp, also marks subjects in Maasai (cf.2.2.1.3)); another, partly similar, situation is that of Turkana (Nilotic, Kenya and Uganda), which combines adpositional clitics with tones. It is worth recalling that Somali also has a clitic subject (*-aan* in the 1SG, *-aad* in the 2SG, etc.), which is generally attached to the focus marker, and which Somali shares with such Cushitic languages as Oromo, Dullay and Iraqw (other Cushitic languages have subject prefixes, like Beja and Afar-Saho, or subject suffixes) (cf. Tosco 2005: 202).

There are also Adps whose location corresponds to the method called "intercalation" by Greenberg (1963: 72–3). It seems that these Adps are those which Dryer (2005*b*: 346) calls "inpositions". They occur inside the noun-phrase. In Tümpisa Shoshone, for example, inpositions appear (Dryer 2005*b*: 346) between the head noun and its postnominal modifier, as in (17):

(17)   Tüᴍᴘɪsᴀ Sʜᴏsʜᴏɴᴇ (Numic, Uto-Aztecan, United States) (Dayley 1989: 257)
ohipim   ma   natii'iwantü-nna tiyaitaiha satü
cold.OBJ from mean-OBJ   died   that
'he died from a mean cold'

In (17) we see that *ma*, although it occurs inside the noun-phrase, nevertheless governs this noun-phrase, since it requires the objective case, here marked on the adjective. If the morpheme attaches phonologically to the end of the first word in the noun-phrase, it is, in Dryer's terms (2005*a*: 211) an inpositional clitic, as in (18), from Yawuru, and (19), from Anindilyakwa:

(18) Yawuru ((Nyulnyulan, Australian, Australia) (Hosokawa 1991: 36)
      kayukayu-ni buru i-naa-nya -rn -dyarra-yirr   *mudiga*
      soft-ERG   sand 3-TRZ-catch-IMPF-1.AUG.DAT-PL   motorcar
      'the soft sands caught our car'

(19) Anindilyakwa (Gunwinyguan, Australian, Australia) (Groote Eylandt Linguistics-langwa 1993: 202)
      … *narri-ng-akbilyang-uma*   *eyukwujiya-manja eka*
      … CL1.PL-CL2-stick.to.end-TA small-in   stick
      ' … they stuck them (the feathers) to a little stick'

According to Dryer (2005*b*: 346), only seven languages possess inpositions as the dominant Adp type, and six of them are in Australia. One may question the status of inpositions as a phenomenon in itself, knowing, in particular, that adpositional affixes, as well as a clitics, can be used, depending on the context, in two different positions, for instance both as postpositions and inpositions. Thus, the comitative Umbrian morpheme *-ko(m)/-ku(m)* is a Po in (16) above, but it is an inposition in (20), where its meaning is locative:

(20) Umbrian (Buck 1928/1974: 202)
      nertru-ku persi
      left-at   foot
      'at the left foot'

2.2.2.3 **Case affixes**   Case affixes attach to nouns, either preceding them, and then being case prefixes, or following them, and then being case suffixes. Much more rarely, they are circumfixes, that is affixes made of two elements, one of which is located before the governed term and the other one after it. Unlike adpositional clitics, case affixes do not attach phonologically to some stressed word, whether the first or the last one in the noun-phrase.

Case prefixes are less common than case suffixes. They are, however, attested in quite a few languages. Here is the list of these languages derived from combining Hall (1988) and Dryer (2003):

- one Indo-European language: Prasuni (Nuristani, Afghanistan); one West Semitic: Sabaic (not yet totally extinct?) (Aramaic, Iraq);
- one Kordofanian: Krongo (Kadugli, Sudan);

- ten Niger-Congo—one Cross-River: Kana (Nigeria), and ten Bantoid: Hunde (Democratic Republic of Congo), Lucazi (Angola), Luvale (Angola), Ndebele (South-Africa), Ndonga (Namibia, Angola), Noni (Cameroon), Talinga (Uganda, Democratic Republic of Congo), Tonga (Zambia), Xhosa (South Africa, Zimbabwe), and Zulu (South Africa);
- one Nilo-Saharan: Ateso (Nilotic);
- two Oto-Manguean: Ocuilteco (Otomian, Mexico) and Mitla Zapotec (Zapotecan, Mexico);
- one Tequistlatecan: Chontal de Oaxaca (Mexico);
- one Totonacan: Tepehua (Mexico);
- three Salishan—one Central Salish: Squamish (Canada), and two Interior Salish: Kalispel (United States), and Shuswap (Canada);
- one Penutian: Takelma (United States);
- five Austronesian—two Western Malayo-Polynesian, both Sundic: Enggano (Indonesia), and Nias Selatan (Indonesia), and three Eastern Malayo-Polynesian, all of them Oceanic: Gagapaiwa (Papua New Guinea), Mwotlap (Vanuatu), and Sakao (Vanuatu);
- two Mon-Khmer—one Bahnaric: Cua (Vietnam), and one Aslian: Temiar (Malaysia);
- two Burarran: Burarra and Gurr-goni (Australia);
- one Maran: Mara (Australia);
- one West Papuan: Maybrat (North-Central Bird's Head, Indonesia).

This list is not even complete: I consider that it should at least include Classical Armenian, where the object of a transitive verb in the perfect is marked by a *z-* prefix (cf. Hagège 1993: 64). Thus, case prefixes, even if uncommon, are not at all an unknown phenomenon. Two examples are given below:

(21)   TONGAN (Collins 1962: 54)
       wakaboola a-John
       he.came   with-J
       'he came along with John'

(22)   GURR-GONI (Green 1995: 93)
       burr-wupunj   awurr-bogi-ni
       INSTR-canoe 3AUG.SUBJ-go-PRCT
       'he went with a canoe'

Case circumfixes are even rarer than case prefixes. The two parts they are made of surround the governed term (Latin *circum* "on both sides"). Example (23) is from Mangarayi and (24) is from Chukchi:

(23)   MANGARAYI (Non Pama-Nyungan, Australia) (Merlan 1982: 57)
       ṇa-malam-gan
       in-man-in
       'at man's place'

(24)   CHUKCHI (Northern Chukotko-Kamchatkan, Russia) (Weinstein to
       appear: 26)
       ekvet-g'i   ge-tum -e
       leave-PST with-friend-with
       'he left with (his) friend'

Mangarayi has a case prefix *ṇa-* marking the agentive or patientive and a case
suffix *-gana* marking the ablative, but there is at least one reason for treating
ṇa-...gan as a single circumpositional affix rather than as the combination of
a prefix + a suffix: it has a single apudessive meaning (cf. Section 5.3.3.2.b). As
for Chukchi, this language has a huge number of circumfixes, among which
those marking the similative comparative (cf. Section 5.3.3.4.d), namely *t(e)-/
t(a) ... -ŋe/-ŋa* "like", the privative *a- ... -ka* "without", or, besides the
comitative illustrated in example (24), other circumfixes with the same
meaning, for instance *ga- ... -ma*.

2.2.2.4 *Investigating criteria for the distinction between Adps and case
affixes*   What are the main differences between case affixes and Adps? In
this section I will successively study phonological (2.2.2.4.a), morphological
(2.2.2.4.b), word order (2.2.2.4.c), syntactic (2.2.2.4.d), semantic-pragmatic
(2.2.2.4.e), and diachronic criteria (2.2.2.4.f), before concluding (2.2.2.4.g).

2.2.2.4.a **Phonological criteria**   Let us first examine phonological independ-
ence. In Russian and other inflectional languages, although case endings are
often stressed due to the general word-stress system of the language (which
does not apply specifically to cases only), case endings cannot be stressed
independently of their governed term. To see how Adps behave in this respect,
we may apply a criterion of independence, namely that independent elements,
unlike dependent ones, can usually be conjoined (cf. Kilby 1981: 104). In
individual languages, case affixes cannot be conjoined: it should, for that
purpose, be possible for them to be detached from their respective governed
terms. As for Adps, they do not all exhibit the same behaviour. In Turkish,
Tagalog, and Nivkh certain Adps may be conjoined while others may not
(cf. Kilby 1981: 110–11). Similarly, in Russian *v* "in" (an adpositional clitic: cf.
Section 2.2.2.2) and *na* "on" may not be conjoined, whereas *za* "behind"
and *pered* "in front of" may, as shown by (25a) and (25b) respectively:

(25)   RUSSIAN (Kilby 1981: 106)

   a.   *bumagi*   *ležali*   *v*   **(jaščik-e)*   *i*   *na*
        paper.NOM.PL   lay.IPFT.PST.PL   in   box-LOC   and   on
        jaščik-e
        box-LOC
        'papers were lying in (the box) and on the box'

   b.   *oni*   *stojali*   *za*   *(nim)*   *i*
        3PL   stand.IPFT.PST.PL   behind   3SG.INSTR   and
        pered   *nim*
        in.front.of   3SG.INSTR
        'they were standing behind (him) and in front of him'

2.2.2.4.b Morphological criteria   The examination of phonological properties does not give decisive criteria to allow us to distinguish between Adps and case affixes. Let us, therefore, study morphological properties. But before going further, a distinction may be made inside case affixes themselves: that between agglutinative and fusional case affixes. It parallels the distinction between agglutinative and inflectional languages, still useful although much has been discovered since the beginning of the nineteenth century, when it was proposed by the Schlegels (1808, 1818), Pott (1833–6), Bopp (1833–57), Humboldt (1836), Pott (1849), Schleicher (1861), and others. Let us briefly recall that a fusional case affix

   i.   is often fused with the stem which it governs, and is morphologically obligatory, as illustrated in many Indo-European languages (Latin, Classical Greek, Slavic languages, etc.);
   ii. marks together, in addition to case, under a mostly unanalysable form, several categories, like number and gender, and sometimes the definite article, as in Romanian and Albanian; fusional case affixes are often found in a system which tends to be more conservative than the nominal system, i.e. the personal/possessive pronominal system, as shown by English *him* (=3rd person + accusative/dative + masculine), although this also ocurs in languages which are otherwhise synchronically agglutinative, like Kannarese (cf. Hagège 1990a: 300–1); in certain languages, such as Aymara, Galibi, Guarani, Erzya Mordvin, and others, pronominal systems contain blended forms, which I have called *sagittal* (cf. Hagège 1982: 107), for what would be in Latin *ego/te* or *tu/me*, i.e. an agent first or second person acting, respectively, upon a patient second or first person. A sagittal pronoun appears in Chapter 3, example (22) from Nootka.

An agglutinative case affix, on the other hand,

    i. expresses only case;

    ii. is optional, the bare stem also being allowed to appear on its own;

    iii. does not bring about, given its transparent association with the stem, many boundary accidents, although, there may be, even in typically agglutinative languages, some consonant or vowel alternations, as is shown by Hungarian, Turkish, or Estonian: in Estonian, for example (cf. Hagège 1990*a*: 302), we find such pairs as:

(26)   ESTONIAN (Finnic, Finno-Ugric, Uralic, Estonia)
        tigu (nominative singular) *teo* (genitive singular) 'snail'
        viga (nominative singular) *vea* (genitive singular) 'error'
        rege (partitive singular   *ree* (genitive singular) 'sledge'.

Case affixes are easily distinguished by the fact that, unlike Adps, they are often, in the majority of languages, simple vowels, or monosyllabic morphemes. Typical examples are German, Russian, or Arabic, where the three case affixes are vowels: -*u*, -*a*, and -*i*, respectively for the nominative, the accusative, and the genitive-dative, while Prs, whether mono-, bi- or polysyllabic, and mostly requiring, when they constitute a Complex preposition (cf. Section 2.2.3.4) with their governed term, an oblique -*i* ending on the latter, never themselves have the form of a single vowel.

A second, and important, difference between case affixes and Adps should be stressed, namely that case affixes, in inflectional languages, are often organized in paradigms which have at least two relevant properties: (i) the members of these paradigms undergo, like those of any other paradigm type, pressures brought about by their belonging to a coherent set, and illustrated by the historical evolution of many case systems, such as those of Baltic languages, Armenian, etc.; (ii) one of the members of these paradigms, generally the nominative or the absolutive as in the Latin neuter third declension, the German and Russian masculine declensions, various declensions in Daghestanian languages, etc., has a zero mark, assigned by linguists the same importance as the other marks.

As opposed to that, the set of Prs or Pos of a given language is not, or not so much, internally organized in paradigms whose members are diachronically submitted to reciprocal pressures, and does not have a zero member (this is not the same thing as the possibility for an adverbal complement not to be marked by an Adp: cf Section 4.1.4). These facts suggest treating certain function markers like the Persian object marker *rā* (cf. Section 3.4.5.2, and Mel'čuk 2006: 141, 175) as Adps rather than case affixes, and similarly also tonal connective markers like the one illustrated by the Yoruba example (90b) in Chapter 3.

A third morphological difference between case affixes and Adps concerns case doubling. It is a frequent phenomenon by which, in many inflectional languages, case morphemes tend to be suffixed to all components of the governed term, in addition to its head noun. This is shown for Russian by (27a) and by the impossibility of (27b). But unlike case morphemes, Adps (including adpositional clitics) occur only once, either, in Russian, as the first element of an Adp-phrase but not with all its components (as is shown by the fact that (27c) is ungrammatical) or, in postpositional languages, as the last element of an Adp-phrase, as is shown by (28) from Japanese. However, this is only a tendency: in a language possessing both case suffixes and Pos, for example Basque, case suffixes also occur only once, as shown by (29):

(27)   RUSSIAN (Kilby 1981: 105)
　　　a. *v odn-om*　　　*bol'š-om*　　　*dom-e*
　　　　　in one-LOC.M.SG big-LOC.M.SG house-LOC
　　　　　'in a certain big house'

　　　b. **v odn-bol'š-dom-e*

　　　c. **v odn-om v bol'š-om v dom-e*

(28)   JAPANESE (isolate, Japan)
　　　ikken-no　furui ooki-na　　ie　de　　hataraku
　　　one-GEN　old　big-ADJ.MK house ACT.INESS work
　　　'to work in an old and big house'

(29)   SOULETIN BASQUE (isolate, France)
　　　etxe　zahar eta　handi bat-a-n
　　　house old　and big　one-ART-INESS
　　　'in an old and big house'

However, the ban on Adp doubling is not universal. Certain Hungarian Pos do not govern a　case-affix-marked noun (cf. Section 2.2.3.4). They belong to the *fölött* "above" or *mögött* "behind" type (which, unlike *kivül* "outside of", can be inflected for person and is always contiguous, and never preposed, to the governed term).　These Pos must be doubled. In this respect, they behave like case affixes, in noun-phrases containing a demonstrative (the only noun-phrase constituent to agree in case and number with nouns), as seen in (30a), to be compared with case affix doubling in (30b); however, an important difference is that two Hungarian Pos like *mögött* may be coordinated, whereas this is impossible for Hungarian case affixes. Moreover, in old Russian, Pr doubling may occur, but only in postnominal position, with attributive adjectives as well as with appositive nouns, as shown by (31a) and (31b)

respectively; the same happens for possessive adjectives in Russian folktales, and even in oral conversation to mark emphasis, as shown by (31c) and (31d):

(30) HUNGARIAN (Ugric, Finno-Ugric,Uralic, Hungary) (Plank 1995*b*: 63)

    a. *e*   *fölött*   *a*   *hajó fölött*
       PROX.DEM above ART ship above
       'above this ship'

    b. *a(z→)b-ban*   *a*   *ház-ban*
       DIST.DEM-INESS ART house-INESS
       'in that house'

(31) OLD RUSSIAN (Plank 1995*b*: 63)

    a. *ko knjaz-ju*   *k velik-omu*
       to prince-DAT.SG to grand-DAT.M.SG
       'to the Grand duke'

    b. *s*   *knjaz-em*   *s*   *Ivan-om*
       with prince-INSTR.SG with Ivan-INSTR.SG
       'with Prince Ivan'

    c. *čto-to*   *v moj-om*   *v gorl-e*
       something in POSS.1SG.N-INESS.SG in throat-INESS.SG
       zastrjalo
       stick.PFT.PST
       'something stuck in my throat'

    d. *poka* **na** *naš-em*   **na** *sajt-e*   *očen' malen'kij*
       so.far on POSS.1PL.-LOC.SG on site-LOC.SG very small
       arxiv   *igr*
       archive game.GEN.PL
       'so far we have a very small game archive on our site'.

But these uses of Adps are subject to the constraints just mentioned, and they are not statistically dominant. However, since they exist, we must look for other morphological criteria that could more radically distinguish case affixes from Adps. We note that in many inflectional languages having declension paradigms, that is various lexical classes into which the nominal lexicon, and the adjectival one when existing, are distributed, the form of a bound morpheme such as a case suffix often depends on the paradigm to which the governed noun belongs: for instance, in Russian, the instrumental of *dom* "house" is *dom-om*, while that of *palka* "stick" is *palk-oj*. Moreover, example (27a) shows that the locative case of the noun *dom* is *dom-e*, while those of the demonstrative and of the masculine singular adjective preceding the noun are

odn-om and *bol'š-om* respectively. Formal variation of Adps depending on the class or type of the governed term is far from being an unknown phenomenon (cf. Section 3.3.3.5). However, it is rarer than morphological variation of case in inflectional languages, and it does not have the same systematicity.

A fourth morphological criterion is that case affixes often blend gender and/or number with case proper, as is shown by Latin, Classical Greek, Basque, and, for Russian, by examples (25b) and (27). No such blending exists with Adps.

A fifth, and more specific, morphological criterion has to do with the behaviour of Adps and case affixes with respect to the inflection problem. It is a widely studied fact, and it will be the main topic of Section 4.1, that one of the characteristic functions of an Adp is to relate a term, with which it constitutes an Adp-phrase, to a predicate, often represented by a VP, and thus to mark the grammatical and semantic relationship between them. This implies that the Adp-phrase is external to the VP, and we will see in 2.4.1.3.c that other morpheme types, for example applicatives, which do a job comparable to that of Adps, distinguish themselves from Adps by this very property that they are internal to the verb phrase. Furthermore, there is a general principle of morphology, according to which languages tend to avoid inflection inside derivation. If we consider that Adp-phrases belong to the domain of inflection (cf. Section 2.2.2.4.g), there seem to be fewer examples of Adp-phrases than case-affixes violating the "inflection avoidance inside derivation" principle. In certain languages we find adverbial phrases with case-markers violating this principle, by allowing inflection inside derivation, namely allowing case-marked noun-phrases to occur before derivational suffixes by which VPs are closed. Consider (32):

(32)   SOULETIN BASQUE (Lafitte 1962: 205)
      a. *etxe-ra*
          house-ALL
          'to (a) house; home'
     a'. *etxe-ra-tu*
          house-ALL-INF
          'go home'
      b. *etx-ko*
          house-LOC.GEN
          'of (the) house; at home'
     b'. *etxe-ko-tu*
          house-LOC.GEN-INF
          'get used to'

Such violations also occur, more frequently, it seems, when the morpheme following a case-marker is not a derivative, but a nominalizing morpheme like

an article, itself followed, as the case may be, by a number marker. This situation is illustrated in example (33):

(33)   SOULETIN BASQUE (Lafitte 1962: 205)
        etxe-ko-a-k
        house-LOC.GEN-ART-PL
        'the persons inside the house' (often 'the servants')

Another example I can mention is that of Cariban languages like Tiriyó, where we find such phrases as:

(34)   TIRIYÓ (Cariban, Brazil, Suriname) (Meira 2004: 218–19)

        a. *ji-pën-n*
           1SG-ABL-NZR
           'one from me'

        b. *j-eira-to*
           1SG-IRAS-NZR
           'one who is angry at me'

Unlike the nominalizer -*n*, which is used after other Tiriyó Adp-phrases, the nominalizer -*to* is used after Adp-phrases containing mental state Pos (cf. Section 5.3.3.4.f).

A sixth morphological difference between Adps and case affixes is that Adps can be combined with various morphemes, such as diminutives (cf. Section 3.4.6.4) or negations (cf. Section 3.4.6.7). Similar combinations might exist in case affixes, but I know of no example so far.

One last, very simple, morphological difference between case-markers in general and Adps concerns their respective sizes. We note that cross-linguistically, case affixes are shorter than Adps. This might reflect the general principle according to which length is inversely proportional to frequency. And we know that in a language which possesses both case affixes and Adps, the former are more frequent than the latter, if only because case affixes are preferred markers of core functions, which are recurrent.

2.2.2.4.c **Word-order criteria**   Let us now examine word-order differences between Adps and case affixes. Prs, at least, are quite distinct from case affixes, since the former, unlike most of the latter (but not all of them: cf. Section 2.2.2.3), precede their governed term. But this does not apply, of course, to other Adp types. Let us examine, then, other word-order differences. An important one is

that case affixes occur in a determinate position with respect to their governed term, whereas Adps may be separated from their governed term by inserted words. Such discontinuous Adp-phrases were a particular feature, for instance, of Old Norse, where one finds many examples like (35):

(35)   OLD NORSE (Germanic, Indo-European) (Faarlund 1995: 64–6)

    a. *à   ykkir   mér   vera skuggi   nkurr*
       on seem.3SG.PRS 1SG.DAT be   shadow.NOM some
       manninum
       man.DEF.DAT
       'it seems to me that there is some shadow on the man'

    b. *munum   vér   frá   hverfa ánni*
       FUT.1PL 1PL.NOM from turn   river.DEF.DAT
       'we will go away from the river'

The Prs *à* "on" in (35a) and *frá* "from" in (35b) are separated from their governed terms *mér* and *ánni* by the verbs *ykkir* "seems" and *hverfa* "turn" respectively. The inserted word is mostly a verb, and there are rarely more than two words between a Pr and its governed term in Old Norse. In French, on the other hand, certain Prs, other than spatial ones, may be separated from their governed term if the latter is not too short, as shown by (36), which contains an Adp-phrase inserted between a Pr and its governed term. In Classical and Modern literary English, the inserted material that breaks up an Adp-phrase contains space or time expressions, or epistemic modalities, which coincide with one word, as in example (36′a), or even with long phrases or clauses, as in examples (36′b–c), providing that a condition of heavy noun-phrase shift is respected, as is shown by the strangeness of (36′d).

(36)   FRENCH

    *il est venu **avec**, pour ma femme, **un bouquet de fleurs***
    3SG come-PST with for POSS.1SG wife INDEF.ART bunch of flowers
    'he came with a bunch of flowers for my wife'

(36′)   ENGLISH

    a. *he left **with**, allegedly, **three people***

    b. *she went **through** , in that brief interval of her infant life, **emotions such as some never feel*** (C. Brontë, *Vilette*; cited in Jespersen 1909–49 III: 275)

    c. *the missing files were discovered **under** , after hours of searching, **a huge pile of poker chips that no one had noticed before*** (Tseng 2000: 49)

    d. *the missing files were discovered under, after hours of searching, my sandwich (ibid.)*

These word order differences are not the only ones we have to take into account. In certain languages three Adps, and not only two as in Elamite or Kanuri (cf. Plank 1995*b*: 41), can even, again unlike case suffixes, be juxtaposed at the end of a noun-phrase or a sentence, and sometimes fairly far from their governed term. Consider (37), ungrammatical in Russian, and (38), from Sumerian, or (39), from Moru:

(37)   RUSSIAN
       *v odn bol'š dom-om-om-e

(38)   SUMERIAN (Plank 1995*b*: 41)
       é   šeš   lugal-ak-ak-a
       house brother king-GEN-GEN-INESS
       'in the house of the king's brother'

(39)   MORU (Moru-Ma'di, Central Sudanic, Nilo-Saharan, Sudan) (Tucker 1940: 165)
       a. *kokyɛ uni   toko   dasi odrupi **ma ro ro ri***
          dog   blackness woman main brother 1SG of of of
          drate
          die.PST
          'the black dog of the main wife of my brother is dead'
       b. **kokyɛ uni toko dasi ri odrupi ro ma ro drate*

Example (37) is ungrammatical because successive case suffixes cannot, in Russian as in most languages, occur on their own and detached from the governed terms; (37) cannot, therefore, be used as an alternate form of (27). Thus, (38) is quite exceptional in this respect. As to (39a), let us examine it with reference to Kuno (1974), according to whom languages

will embody devices to minimize those patterns that cause perceptual difficulties [due to the] limitation on the human capacity of temporary memory [. Thus, in order to ban structures that] would impose an intolerable burden on the memory of the speakers [,] combinations of postpositions and postnominal positioning of attributives [, as well as combinations of] prepositions and prenominal positioning of attributives [will be avoided, because they would bring about] a hopeless situation of center-embedding and juxtaposition of postpositions [or an] equally hopeless situation of center-embedding and juxtaposition of prepositions. (Kuno 1974: 118, 120, 128)

In Hagège 1976, example (39a) was cited as a counter-example to Kuno's claim. Other Central Sudanic languages are also counter-examples: Mangbetu (Democratic Republic of the Congo), which also belongs to this branch of

Nilo-Saharan, exhibits the same phenomenon, and a comparable fact is found in Kanuri, also Nilo-Saharan (cf. example (61) in this chapter). Example (39a) literally means "black dog (lit. "dog blackness") (the one) of (=*ri*) main wife (the one) of (=*ro*) brother (the one) of (=*ro*) me is dead". In other words, *ri* and *ro* are postpositions marking an adnominal ("genitive") relationship and agreeing in class (human *ro* vs. animal *ri*) with the head nouns, here successively *kokyε* "dog", *toko* "woman", and *odrupi* "brother" (cf. Sections 3.4.6.2 and 3.4.6.5). We have here what Kuno calls, in the passage cited above, a "hopeless situation of center-embedding and juxtaposition of postpositions"; in fact (39b), in which the genitive markers would follow each of their governed terms, is totally ungrammatical. According to native speakers (cf. Hagège 1976: 200–1), the structure illustrated in (39a) is quite natural, and does not involve any production or comprehension difficulty. Such a structure is apparently ruled out for case affixes: I know of no language in which several case affixes can be grouped and juxtaposed together far from their governed terms and at the end of a sentence like genitive-marking Pos in Moru and Mangbetu. Furthermore, case affixes cannot be coordinated; only the group they constitute with the term they govern can be, whereas Adps may be coordinated (cf. (25b) here, (7) in Chapter 4, (15) in Chapter 5). Claiming that we have here a case of areal diffusion—since all the languages cited as counter-examples are Nilo-Saharan—does not invalidate the argument.

The foregoing can help us to make a decision in certain contexts where we note word-order discrepancies. The association of a function marker with a possessive affix provides such a context. Consider (40)–(41):

(40)   HUNGARIAN (Evans 1995*b*: 414)
   a. *barát-om-**nak***
      friend-POSS.1SG-DAT
      'to my friend'

   b. *al-ól-unk*
      below-ELAT-1PL.POSS)
      'from below us'

(41)   FINNISH (Finnic, Finno-Ugric, Uralic, Finland) (Evans 1995*b*: 414)
      *sin-**un**   ede-ssä-**si***
      2SG-GEN   front-INESS-2SG
      'in front of you'

In (40a) the function marker follows the possessive suffix, while it is the possessive suffix which follows the function marker in (40b) and (41), so that in the latter the noun-phrase *ede-* . . . *si*, which is governed by the inessive case

suffix *-ssä*, appears, since it is split by the insertion of *-ssä*, as a discontinuous phrase. Evans (1995*b*: 411 s.) labels such a type of word order "anti-iconic", as opposed to the iconic word-order illustrated by (40a). The Finnish word-order and that of Hungarian in (40b) could be explained along the same lines as the one we observe in Australian languages such as Kayardild and extinct languages of the Kulin group once spoken in Western Victoria, namely Wemba-Wemba, Maḍimaḍi and Wergaia. In all of them the possessive suffix also followed the function marking morpheme. Evans writes:

The order Root-Case-Possessive [...] appears to reflect the diachronic order of suffixation, with a very old case system, at least in part, inherited from proto-Pama-Nyungan, inside a more recently developed system of pronominal possessives. It is likely that the pronominal possessor suffixes developed via cliticization of possessive pronominals, either to the first constituent or to the noun-phrase itself".

(Evans 1995*b*: 416)

Now Hungarian-*nak*, as opposed both to Hungarian *-ól* and Finnish *-ssä*, is not a member of an old case system in which the cohesion between noun and case affix has appeared long ago. This explains the difference between (40a) and (40b)–(41), and suggests that *-ssä* and *-nak* do not belong to the same category: it is likely that the function marker which precedes possessive suffixes instead of following them is a case suffix to a former noun (cf. 3.4.6.6), while the function marker which appears at the end of the governed noun-phrase in an agglutinative language like Hungarian seems to behave like a Po, although handbooks generally present it as one of the members of the list of twenty-three case suffixes claimed to be among the characteristics of Hungarian. In other languages too Adps are followed by possessive markers instead of following the whole group which the latter constitute with the possessed noun. Consider (42):

(42)   Swahili (Bantoid, Benue-Congo, Niger-Congo, Tanzania) (Racine-Issa 1998: 197)
nyumba-ni kw-etu
house-in   CL17-POSS.1PL
'in our house'

Here again, the Po *-ni* is enclitic and therefore attached to the noun it syntactically governs, so that the possessive, although it is also in the Po's scope, is stranded outside.

Finally, case affixes cannot, at least in languages described so far, be used as prefixes or suffixes to their governed term depending on the context: when a case affix is a prefix, it always remains so, and similarly when it is a suffix.

Circumfixes (cf. Ssection 2.2.2.3) are not associations of a case prefix and a case suffix, but complex discontinuous markers, the two parts of which may not appear without each other. In contradistinction to that, some Adps may, in various languages, be used either as Prs or as Pos, thereby constituting what are called ambipositions (cf. Section 3.2.2).

2.2.2.4.d **Syntactic criteria**   Let us now mention syntactic criteria distinguishing Adps from case affixes. An important such criterion concerns the distribution of case affixes vs. Adps with respect to core and non-core function marking (cf. Sections 4.1.1–4.1.2). Furthermore, agreement control is more frequent among case affixes than among Adps. But there are some exceptions: in Acehnese (Sundic branch of the Western Malayo-Polynesian division of Austronesian, Indonesia), the argument marked with the Pr *le* "by" controls agreement on the verb; in Niuean (Oceanic branch of Eastern Malayo-Polynesian, New Zealand), some verbs agree in number with subject- and object-marking Prs; and in Tigré (Semitic branch of Afro-Asiatic, Eritrea), the first of two definite objects controls agreement in the verb even if it is an indirect object marked by a Pr (cf . Zwicky 1992: 376).

2.2.2.4.e **Semantic and pragmatic criteria**   I will begin with an argument put forward by some authors (for instance Jakobson 1936; Guillaume 1939; Godel 1955), according to whom case affixes, unlike Adps, would denote a quality which is inherent to the referent of the term governed by these affixes. There is no compelling demonstration of the strength of this argument in these authors' works.

Three further arguments may be considered, which lie at the border between semantics and pragmatics. First, case affixes are generally not omitted, all the more since they form a phonological word with their governed term. As opposed to that, Adps may be omitted (cf. Section 4.1.4) when the meaning expressed by the adverbial complement is considered as clear by the speakers, either because it is suggested by the very meaning of the predicate, or because it refers to a customary or predictable situation.

Secondly, Adps do not exhibit the same behaviour as case affixes with respect to what Haiman (1980: 516) calls "iconicity of motivation". Consider (43a–b):

(43) a. OLD ENGLISH (Quirk and Wrenn 1955–57: 67)
          wohrte   Ælfred cyning lytl-e   wered-e
          build.PAST.3SG Alfred king   small-INSTR force-INSTR
          geweorc
          defence.work

      b. CONTEMPORARY ENGLISH
          king Alfred built a defence work with a small force.

In (43a), of which (43b) is the translation, we see that the case affix in *lytl-e wered-e* is nothing more than a label pointing to the instrumentive meaning of this noun phrase, whereas the Pr *with* in (43b) clearly represents, being a distinct word and being placed between the subject–predicate–object block and the instrument of the action, the exact relationship which binds these two parts of the sentence. We can therefore say that the adpositional solution has a much stronger iconic power than the case affix solution.

Thirdly, there is a pragmatic, or even socio-pragmatic, criterium distinguishing Adps from case affixes. To the best of my knowledge, this criterium has not, so far, been mentioned. It concerns the potential for Adps to be the target of official support on the part of political authorities, which, as far as I can say, does not happen to case affixes.

This might be explained by the fact that it is less easy for political authorities to edict a rule on an affix, that is a bound element, than on an Adp, that is a kind of word which, although often unstressed and hence liable to be conditioned by the phonological context, is more autonomous, and therefore more accessible to manipulation.

An interesting example of **conscious Adp building** is offered by modern Thai Prs, a number of which were recently promoted by political leaders who both wanted Thai to be fit to translation from Pali Buddhist texts and to resemble Latin and English models. Thus, in 1860 King Rama IVth, who had always been very interested in the Thai language when he was Prince Mongkut, published thirty decrees on Thai, among which there was not only a recommendation that the verb *dây* "to get, obtain", be adopted as the Thai equivalent of the Latin perfect, but also a recommendation prescribing the correct choice of usual Prs, such as -*kap* "with", -*kɛ* "for", *nāy* "in", *tè* "from", *yāŋ* "towards".

Later, under the influence of Prince Damrong Rajanubhab, in the royal classrooms during the 1880s, the Thai Pr *dō:y* (middle tone) "was reanalyzed from a locative ("by the river") to an agent marker ("by Shakespeare") ... to facilitate translation from English"! (Diller 1993: 398). Interestingly, these actions, made from the outside, on the natural evolution of a language, were to provoke reactions from teachers (cf Phraya Upakit Silapasan's *Grammar of the Thai language* (1930) stressing the difference between Thai and English Prs), but also from linguists (cf. Section 3.4.5.3). In Ukraine a "prepositional war" ended with the victory of nationalists requiring *v* "in" is instead of traditional *na* "on" to say "in Ukraine" *v Ukraine*, because they view Russian-influenced *na* as implying, insultingly, an anonymous surface (Krivoruchko 2008).

An even more striking example is the Biblical Hebrew focus marker *'et*. A heated debate took place between 1952 and 1960, with such protagonists as the founder and first Prime Minister of the State of Israel himself, D. Ben

Gurion, as well as other statesmen, many journalists, and even ordinary people, with the result that the morpheme *'et* was finally imposed as a Pr. This Pr became, and is for every speaker today, except in spoken styles, the obligatory marker of definite objects in Israeli Hebrew (cf. Hagège 1993: 34–5).

Another pragmatic criterion, a more individual one, is that in general, native speakers, when able to refer metalinguistically to grammar tools, will say "the word *with*", "the expression *for the sake of* ", but not, or much less easily if they are not learned people, "the word *-em*" or "the word *-i*", referring, respectively, to the masculine singular dative case suffix in modern German and to the singular genitive-dative case suffix in modern literary Arabic. In other words, it is possible to objectify Adps, by mentioning an Adp as something about which something is said, whereas it is much less easy to do so with case affixes.

2.2.2.4.f **Diachronic criteria**   The importance of diachronic criteria has not yet been stressed as much as it deserves to be. First, affixal case-systems are generally paradigms containing a finite number of units. These units are not immune to historical changes which introduce new members or eliminate old ones (cf. the histories of Greek, Latin, Sanskrit, Baltic languages, etc.), all the more since any paradigm implies reciprocal pressures of members upon one another. However, case affixes are much less open to evolutions than the sets of Adps of most languages. Furthermore, it will be shown in Section 3.4 that case suffixes often derive from Pos, in turn deriving from lexical relational nouns, just as case prefixes often derive from Prs, in turn often deriving, at least in languages whose history is not unknown, from one of the verbs in a serial verb construction. It is important to stress these two sources of Adp-formation, for the very reason that their study provides a further distinction criterion between Adps and case affixes: the adpositional status of Adps deriving from relational nouns and of those deriving from serial verbs is itself put into question. This is because it is sometimes denied that the grammaticalization process has really reached its endpoint, hence the idea that these linguistic entities should be treated as Adp-like relational nouns and Adp-like serial verbs respectively (cf. Section 3.4.5.3).

Besides the historical evolution from verbs and nouns to Adps by grammaticalization, another development—the historical evolution from case affixes to Adps—is attested and studied for various languages, for example Romance languages as opposed to their ancestor, Latin, without forgetting the role played, in this process, by word order (cf. Ernout et Thomas 1953: 9–10, cited in Section 4.1.1.5). In case languages the difference between case affixes and Adps appears clearly in this process, especially when the transition from

one to the other is the result of borrowing. For example, speakers of a case language, namely those belonging to the Croatian minority in Molise, a region in southern Italy, borrow several Prs from Italian, a caseless language. Spontaneously searching in Croatian functional equivalents to these Italian Prs, they will not find them in Croatian case suffixes, but in morphemes corresponding to Italian prepositions, and they will use these morphemes in association with Croatian case suffixes, strengthening, for example, the instrumental case suffix by the comitative preposition *z* equivalent to Italian *con* (Heine and Kuteva 2006: 77). In a comparable way, Basque, under pressure from the Romance languages surrounding it (French, Spanish and Gascon), builds Complex Adps (cf. Section 2.2.3.3) combining case-governed grammaticalized nouns (cf. Sections 3.4.5.2 and 3.4.5.3) with cases, for example *-ri/-rat buru-z* (literally "DAT/ALL head-INSTR") "in the direction of" (cf. Haase 1992: 73–5).

2.2.2.4.g Conclusion   To conclude, it is not quite true that everything one can do with Adps one can do with case markers, as claimed in the statement in Section 2.2.2.1. It is certainly true from the strictly syntactic point of view, since both Adps and case-markers are used to set up a link between the term they govern and the head, that is the term on which this governed term depends as its complement. In this respect, Adps and case-markers all serve the same pupose, namely function marking, and one can say that just as noun-phrases marked by a case-marker are said to be inflected, Adp-phrases are also, in a wide acceptation of the term, illustrations of the inflection phenomenon: a term governed by an Adp may be said to be inflected, say, for locative, allative, dative, comitative, etc., just as it is, when marked by a case, inflected for locative, allative, dative, comitative cases, etc.

But besides having this syntactic point in common, they show many morphological differences. We have seen that Adp doubling is submitted to strong constraints. It is rare, although not unattested, for Adps to blend the indication of function with gender or number. And they do not often code core relations. Case affixes, on the other hand, can have these three roles, but they cannot be conjoined, nor appear without their governed term, nor be separated from it by other words or juxtaposed alone at the end of a sentence.

Many languages have both Adps and case affixes. The various phonological, morphological, word order, syntactic, semantico-pragmatic, and historical differences we have studied above are in agreement with the fact that these languages will, quite logically, give the two strategies a good deal of differentiation from each other. This dovetails with the difference between the ways the two strategies are used: in most cases (although there are some exceptions,

as will appear later), languages with both case affixes and Adps use the former to express more abstract relations, and the latter to express more concrete ones. Within concrete relations, an important part is played by spatial relations, which are, therefore, one of the main domains of Adps (cf. Section 5.3.3.2, and, especially, 5.3.3.2.a).

The transition between lexemic and morphemic statuses is gradual, as are many other transition types in languages, and this is the reason why it is probably better to view adpositionhood and casehood not as simple properties, but rather as complex ones, which entails that these properties are analysable into sets of more basic properties (cf. Plank 1989: 19). Consequently, Adps and case affixes are best distinguished by a combination of the phonological, morphological, word-order, syntactic, semantico-pragmatic, and historical criteria that I have examined in the sections above. Of course, this does not mean that one should ignore the difficulty of drawing a very sharp line between Adps and case affixes. A basic fact is that Adps grammaticalize into case affixes, and are simultaneously renewed or reinforced by newly grammaticalizing case affixes, according to a general trend of reciprocity common to human languages. But in synchrony (although, admittedly, a strictly synchronic view is, to some extent, arbitrary), Adps are a category in their own right, and this is exactly what Section 2.2.2 has tried to demonstrate. It is also true that from a rigorously functional perspective, Adps and case affixes perform the same function, namely to set up a relationship between a core or circumstantial complement and a head on which it depends. But such a perspective, entirely based on syntactic considerations, neglects an essential fact which is central to the present book: the importance of morphology. Writing a monograph on Adps implies that despite many decades characterized by the primacy of syntax, one wants to contribute to restore morphology as a core constituent of languages (cf. Section 6).

But one further difference between Adps and case affixes remains to be considered. This difference is an important one. Although they are generally equivalent syntactically, they are far from being really one and the same word-class. This is proved by the fact that they can be associated, thus yielding another, morphologically more complex, type of function marker, namely Complex Adps. I will study this phenomenon in the following section.

2.2.3 *Complex Adps as associations of an Adp and a case affix*

The distinction between Adps and case affixes does not mean that they cannot appear together in one complex unit. I will call a Complex Adp a word-type in which one of the constituent parts is an Adp, and the other is a case affix, in a

form required by the Adp. Thus associated in one and the same complex unit, the Adp and the case affix govern together a noun-like element. In many languages, the Adp of a Complex Adp is itself linked to the governed term by a connective element, that is either a genitive case or another Adp (cf. Section 3.4.6.5).

In this section I will first present other phenomena from which Complex Adps should be distinguished, namely case heaping (2.2.3.1), case agreement, (2.2.3.2) and case association (2.2.3.3). I will then study Complex Adps (2.2.3.4).

2.2.3.1 *Case heaping*   I propose to call *case heaping* a phenomenon involving adnominal complements marked by a succession of two or more contiguous case markers or case marker-like elements. Case heaping can be even more complex when further cases are added. Consider the structure illustrated in (44), from Basque, and (45), from Turkish:

(44)   SOULETIN BASQUE (Plank 1995*a*: 91)
       gizon-a-ren-ari
       man-ART-POSS.GEN-DAT
       'to that of the man'

(45)   TURKISH (Turkic, Altaic, Turkey) (Plank 1995*a*: 91)
       adam-n-ki -ne
       man-GEN-NZR -DAT
       'to that of the man'

In (44) the genitive marks the possessor, and this, in turn, is marked by the dative, which is applied to the whole noun-phrase. Similarly, Turkish uses the nominalizer -*ki* "the one that (is)" in (45) (cf. Section 4.2.2). Thus, in situations of case heaping, one of the two cases, generally the genitive or the dative, marks the governed term as an adnominal complement, while the other marks the syntactic relationship between the noun-phrase thus marked and its head. This structure is not the same phenomenon as case doubling, studied above in Section 2.2.2.4.b (where it is illustrated by example (27), and which is itself often called case agreement. The phenomenon I am referring to here is an apparent violation of an essential principle, stated in Hagège 1975: 187–92, according to which only one Adp can govern a term, a statement taken over by this formula:

it is typically the case that noun-phrases in natural language are morphologically marked for only one case.   (Sells 1985: 53)

Are examples (44) and (45) violations of this statement? In fact, the two cases are not on the same level: in both examples only one, the dative, really marks the noun as an adverbial complement of the predicate (not expressed in these

examples). Thus, there is no violation, here, of Sell's statement. Other apparent violations are really case coordinations, which make it possible to express at the same time two adverbial meanings of the same governed term (cf. examples in Section 5.2.2).

2.2.3.2 *Case agreement*   There are situations in which two case-markers seem to be applied to the same element. This phenomenon occurs, especially, when an adnominal adpositional phrase agrees in case with the noun on which it depends. Case agreement of adnominal adpositional phrases,

> although sporadically attested in diverse linguistic phyla, exhibits a conspicuous areal-genetic clustering, being comparatively widespread in (i) Australian Aboriginal languages (as part of the more general phenomenon of case stacking), (ii) the Panoan branch of Amerindian, (iii) North-East Caucasian (Nakh-Daghestanian), and (iv) Modern Indo-Aryan—while not being completely alien to the rest of Indo-European, both classical (esp. Greek and Indo-Iranian) and modern (colloquial and dialectal Italian).   (Schmidt 2007: 218)

Bopp (1848: 275) was the first to note in Old Georgian the existence of a structure which struck him, and which Finck later called (1910: 141) *Suffix-aufnahme* (suffix-taking), illustrated by example (46), which is taken from a book (Plank (ed.) 1995a) entirely devoted to this phenomenon:

(46)   Old Georgian (Kartvelian, Georgia) (Plank (ed.) 1995*b*: 7)
    ra   *ṭurpa*   *prinvelia,*   *camoiʒaxa*   *erṭ-ma*
    what   wonderful   bird.is   exclaim.PST   one-ERG
    *bavšv-ṭa-**gan**-**ma***
    child -OBL.PL-of-ERG
    ' "what a wonderful bird!", exclaimed one of the children'

In (46), the enclitic Po *-gan* "from among" requires an oblique case as its governed term, hence the OBL.PL *-ṭa*. What is remarkable, however, is that this *bavšv-ṭa-gan*, which is simply the adnominal complement of *erṭ*, receives, just like it, an ergative marker. While the *-ma* which follows *erṭ* is the expected ergative suffix on any agent of a past verb (here *camoiʒaxa*) in (old and modern) Georgian, the only possible justification of ergatively marked *bavšv-ṭa-gan-ma* is case agreement,[2] namely the very phenomenon called *Suffixaufnahme* by Finck. Other old languages also had it, for example

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[2] This type of case agreement in Georgian has long been known by learned speakers of this language. Thus Antoni I, royal prince and patriarch of the Georgian church, wrote in his Georgian grammar, published in 1767: "The genitive case knows a very laudable habit, namely agreement with nouns with which it meets as determiner in a sentence" (cited by Boeder 1995: 151).

Elamite, Hurrian and Urartian. Modern languages exhibiting this phenomenon are spread throughout the world. Important concentrations are found in the Caucasus, for example Bats (or Tsova-Tush: Daghestanian, Nakh-Daghestanian, Georgia), East Africa, for example Burji, Darasa, Oromo (all three Eastern Cushitic, Afro-Asiatic, Ethiopia) Western India, for example Konkani, Sindhi (both Indic, Indo-European), North-Eastern Russia, for example Evenki (Tungusic, Altaic, Russia), Chukchi (Northern Chukotko-Kamchatkan, Russia), and above all, Australia (cf. map in Plank 1995*a*: 96). Sentences (47) and (48) are examples from Awngi (Central Cushitic, Afro-Asiatic, Ethiopia) and Djabugay (Pama-Nyungan, Australia), respectively:

(47) AWNGI (Hetzron 1995: 326)
      woliji-w-des   *aqi-w-des*   *ŋIn -des*
      old-GEN.M-ABL   man-GEN.M-ABL   house.M-ABL
      'from the old man's house'

(48) DJABUGAY (Schweiger 1995: 341)
      ngawu bibuy-ngun-mu-nda   gurra:-nda wa:-ng   ma:
      1SG.A child-GEN-LIG-DAT dog-DAT   give-PRES food.P
      'I give the child's dog (some) food'

The adjunction of an ablative marker onto the two components of an adnominal phrase made of a noun and an adjective that already agree together in case (genitive) in (47), as well as the adjunction of a dative marker onto the adnominal genitive in (48), (where, in addition, a linking morpheme, a ligative, must, as in a number of Australian languages, be inserted between the genitive and further inflection), are typical examples of case agreement with no direct syntactic relationship between the agreeing adnominal complement and the predicate.

  In addition to these types of case agreement, also illustrated in Jiwarli and Thalanyji (belonging, respectively, to the (practically extinct) Mantharta and Kanyara branches of Northwestern Australian languages (cf. Austin 1995)), more complex ones are attested, in which other cases, especially modal and complementizing, are added to agreeing cases. An example will suffice, taken from an Australian language, one from a territory in which this phenomenon is widespread. Consider (49), from Kayardild:

(49) KAYARDILD (Tangkic, Australia) (Evans 1995*b*: 406)
      ngada mungurru maku-ntha   yalawu-jarra-ntha
      1SG   know   woman-CPLCS catch-PST-CPLCS

> *yakuri-naa-ntha*   *thabuju-karra-nguni- naa-ntha*
> fish-MOD.ABL-CPLCS brother-GEN-INSTR -MOD.ABL-CPLCS
> *mijil-nguni-naa-nth*
> net-INSTR-MOD.ABL-CPLCS
> 'I know that the woman caught the fish with brother's net'

In (49) *thabuju* "brother" is followed by no fewer than four cases in a sequence: the genitive *karra* marks it as the adnominal complement of *mijil* "net", but due to case agreement, *thabuju* also receives the instrumental marker *nguni* which sets up an adverbial relationship between *mijil* and the predicate *yaluwu*. In addition, (49) illustrates a phenomenon sometimes occurring in Australian languages, and typical, in particular, of Tangkic languages, as studied by Evans (1995*a*, 1995*b*): it is a special use of case suffixes to signal modality, tense, and aspect, and also complemetizing. In Kayardild, according to Evans,

the modal use of the propietive marks future tense; ... the modal use of the oblique marks "emotive" modality; ... the modal use of the allative marks "directed" mood/ aspect, which may signal either spatial entry into a scene or inception of an event.
(Evans 1995*b*: 400)

With respect to the modal ablative marker *naa*, which occurs three times in example (49)—on the object *yakuri-naa-ntha* "the fish" (unmarked as object in this language, which has no accusative), on the instrumental adverbial complement *mijil-nguni-naa-ntha* "with net", and on the adnominal complement *thabuju-karra-nguni-naa-ntha*—the author writes (*ibid.*): "the modal use of the ablative, which here marks past tense, follows the adnominal genitive and the relational instrumental".

In addition, these three noun-phrases, plus the subject of the complement clause, *maku*, and the verbal predicate *yalawu* all receive a complementizing oblique case *nth(a)*, which is attached to every word in a lower clause to mark it as complement of a higher clause, so that *nth(a)* is repeated no fewer than five times. Of all these case suffixes, only two morphemes, the genitive *karra* and the instrumental *nguni*, which is, itself, repeated, by case agreement, on the adnominal complement *thabuju*, are genuine case-markers, which could be replaced by Adps if the language had some.

2.2.3.3 *Case association*   In certain case languages, it is common to associate two words both marked with the inessive case, one of them signalling location in general, while the other refers to the specific orientation of the located

entity. This device is frequent in Australian languages. An example is given below:

(50)   PITTA-PITTA (Pama-Nyungan, Australian, Australia) (Blake 1994)
       nhangka-ya thithi   kunti-ina   kuku-ina
       sit-PRS   elder.brother house-INESS back-INESS
       'elder brother is sitting at the back of the house'

Such associations, in which the two adverbial phrases are relatively independent of each other, can be considered as a type of double marking which is distinct both from case heaping, examined above, and from complex Adps, to be studied next.

2.2.3.4 *Complex Adps proper*

2.2.3.4.a **General considerations**   It appears from the foregoing that case heaping, as well as case agreement or adjunction of modal, complementizing or other cases, do not change the fact that only one of the markers which may be heaped up onto a term can be considered to govern it and set up a relationship between it and another term in the sentence, this being the very definition of Adps. Therefore, case heaping does not correspond any more than Adp combination or case associations to the definition of Complex Adps, as given at the beginning of Section 2.2.3. We have already come across units that look like Complex Adps.Thus, we have seen that in Maasai, as shown by example (10c), the Adp *toó* requires a special tonal pattern. We have also noted that in Welsh soft mutation is obligatory after certain Prs. Since such devices are among those which, just like case affixes, may be combined with Adps, and since they are equivalent to case affixes, the resulting Adp-phrases can be considered as Complex Adps.

But this type of association is uncommon. In most languages with Complex Adps, Adps, and sometimes adpositional clitics as in examples (12)–(20), are associated with a case-marker. One commonly says that they govern it, where the notion of government does not refer to the relationship of the Adp as a whole with the term (governed term) which it links to a syntactic centre, nor to the relationship of the latter with the governed term through an Adp or case, but to the specific relationship between the Adp and the case-marker along with which it constitutes a Complex Adp.

An interesting fact is that the case, whether the genitive or any other case which is required by the Adp to build with it a Complex Adp, does not coincide with the case manifested by the Complex Adp. In other words, Complex Adps

manifest one case but their adpositional constituent requires another one on the noun-like element it governs. For example, in English, *to* requires the accusative of a personal pronoun, but its association with this accusative manifests the dative, as in *to him*. Latin *apud* requires the accusative, but *apud* + accusative manifest together the apudessive (cf. Table 5.1 in Section 5.3.1 and comment in Section 5.3.3.2.b). Classical Greek *sun* requires the dative, but their association expresses the comitative. In Russian, *za* manifests the postessive or the benefactive, but requires the instrumental or the accusative. In Latvian *uz* manifests the suressive or the allative, but requires the genitive when it means "on" and the accusative when it means "towards". In Georgian *chi* requires the dative, but their association manifests the inessive. I will give examples in the following section.

2.2.3.4.b **Illustrations**   I will present below examples of Complex Adps taken from various language types, all of them inflectional, since the notion of Complex Adp implies that of declension case: Indo-European, Uralic, Altaic, Basque, Arabic, Georgian, Tibetan.

We will begin by considering Indo-European languages. Typical illustrations of Complex Adps are found in the old inflectional languages of the phylum: Classical Greek and Latin, Church Slavonic, Old Lithuanian, Classical Armenian, Sanskrit, etc. The case-requiring Prs of these languages are a well-described phenomenon, but the exact relationship between them and the case they require is studied in some works only, for example Luraghi (1989, 1991). It should be pointed out that many Indo-European languages exhibit a semantic equivalence, not unknown in other language families, between Adp + case (=Complex Adp) and case only, the latter being more fequent: for example in Classical Greek *hybrízein eís tina(=ACC)* / *hybrízein tiná(=ACC)*, both meaning "to insult someone", *akoúein parà tinos(=GEN)* / *akoúein tinos (GEN)* "learn from someone", *oikeîn + ACC /oikeîn epì + GEN* "to live in". This equivalence was mentioned since Priscian by most Greek grammars and dictionaries (cf. Moreux 1978: 1). It is not observed with all Adps, but only with some of the most versatile ones.

In fact, this equivalence between Adps with cases and cases without Adps does not concern any verb in a language. Moreux (1978: 10–18) gives a list of the verbs which, in the language of Attic orators, are attested with these two structures. They only represent a part of the verbal lexicon of Classical Greek, and the semantic classes to which they belong suggest that the problem is no less lexical than syntactic. But an important fact remains to be recalled: there is a semantic equivalence between cases and Adps. This fact has not always

been recognized. Thus, ancient grammarians claimed that Prs make the meaning of cases more precise, defining a preposition as

pars orationis quae praeposita aliis partibus orationis significationem earum aut complet aut mutat aut minuit (a part of speech which, being preposed to other parts of speech, complements, transforms or diminishes their meaning).

(*Grammatici Latini* IV, 365, cited by Moreux 1978: 303–4)

This old definition of Prs does not make it possible to understand the real nature of their relationships with cases.

Complex Adps are a recent phenomenon in the history of languages, at least those of the Indo-European stock. Sanskrit, for instance, was different from Latin and Greek in that case inflections played the main role, and there were only a few Adps: Prs, requiring the ablative, for example *ā* "until", Pos, requiring the instrumental, for example *saha* "with", and the dative was never required by an Adp. Modern Indo-Aryan languages are much richer in Adps than Sanskrit, and therefore have many Complex Adps (cf. Section 3.4.6.5, where examples are given). In Latin there were many Prs, some of which (e.g. *in*, *sub*, *super*) could, depending on whether movement was involved or not, require the accusative or the ablative, whereas among the others, some required the accusative (e.g. *ad, ante, apud, circum contra, inter, ob, per, post praeter, propter, ultra, versus*) and some required the ablative (e.g. *ab, cum, de, ex, prae, pro, sine,* some of which alternated, depending on the meaning, with the use of the ablative alone: cf. Ernout et Thomas 1953: 82–6); but, as in Sanskrit, no one required the dative.

In Classical Greek, *en* "in", *sún* "with", required the dative, another difference with Sanskrit and Latin being that in addition to having Ps, like *diá, katá* or *hypér*, which were able, with meaning distinctions, to require two cases (genitive and accusative), Classical Greek even had a number of others, like *amphí, epí, metá, pará, perí, prós, hypó,* which could require three cases (genitive, accusative and dative).

Among Romance language, Romanian, the only one which has conserved cases, has Complex Adps made of simple Adps + a case, required by them, on the noun they govern, as in *deasupra monte-lui* (over mountain-DEF.M.SG. GEN) "over the mountain", or *în spate-le gării* (in back-DEF.Nt.SG.ACC station.DEF.F.SG.GEN) "behind the station".

German has many Complex Adps, like *inmitten* + GEN "in the middle of", *infolge* + GEN "due to", *zugunsten* + GEN/*von* (requiring DAT) "for the benefit of" (cf. also Section 3.2.2.2 on *zufolge* and other examples of German Complex Adps in Section 3.4.5.1). In another (fairly conservative) Germanic

language, namely Icelandic, besides *um* "around", always followed by the accusative, *handa* "for", *frá* "from", *gegn* "in front of", always followed by the dative, *til* "to", *vegna* "because of", always followed by the genitive, *á* "on", *í* "in", *yfir* "above" and others require either the accusative (when they express a move) or the dative (when the meaning is static). In Gaelic, all compound Prs and some simple ones, like *ré* "during", *trìd* "through", *timcheall* "around", govern the genitive.

In modern Russian, besides many Prs which can only require one case, two others may require three cases each: *po* requires the accusative, the dative or the locative, with variable meanings, such as "on", "because of", "until", etc., and *s(o)* is followed by the instrumental-comitative ("with"), the genitive ("from"), or the accusative ("in proportion with"); other Prs may require two cases each: the accusative or the inessive for *na* "on", *v(o)* "in", *o(bo)* "about", the accusative or the instrumental for *za* "behind, for" and *pod* "under", the genitive and the instrumental for *mež* "between". In Latvian all Prs require the instrumental when the governed term is in the plural, while in the singular, *pa* requires the accusative when meaning "during", and the dative when meaning "in conformity to", *uz* requires the genitive when meaning "on", and the accusative when meaning "towards"; all other Prs require a single case, genitive for *ayz* "behind", *apakš* "under", *no* "from; because of", *pie* "near; about", *virs*, "above", etc., and accusative for *ap* "around", *ar* "with; by", *caur* "through", *gar* "along", *par* "over; for" *pret*, "against; with respect to", *starp* "between", etc.

Armenian has Prs and Pos, some of which require a single case, like the Po *mēj* "in", others, like *vra* "on", require the genitive when they govern a noun and the dative when they govern a 1st or 2nd person pronoun, others require the dative, ablative, or instrumental, while two may require any case depending on the meaning and nature of the governed term (cf. Section 2.3.3). Armenian also has several ambipositions (cf. Section 3.2.2.2).

We now turn to Uralic, the Altaic languages, and Basque. Complex Adps of the Marathi type, where the Adp, mostly a Po, is itself required by core, main locative, or non-locative Adp or case (cf. p. 182), are quite pervasive in Finnic languages. Thus, Finnish Pos, whose origin is nominal, have a construction which is fairly similar to that of a noun, as illustrated in (51a): although they may be uninflected, like *päin* in (51b), they are most commonly inflected themselves, in general with any of the six local cases of Finnish, and they are preceded by a noun or a pronoun which very often takes the genitive, as in (51c). In Finnic varieties known to be more eroded than written (but not colloquial) Finnish, the Postpositional phrase may be replaced by a case-marked adverbial phrase, with a slight meaning difference, as is shown in the Estonian

sentences (52a–b); the case-marker which appears on the Po in these sentences can be any of the local case suffixes, for example the allative on *pea-le* (from *pea* "head") "on(to)" or, with a governed term in the genitive, the ablative on *al* as in *lau-a al-t* (table-GEN under-ABL) "from under the table", etc. Compound Adps (cf. Section 3.3.2) also often govern a term in the genitive.

But Finnic languages, known to be essentially postpositional, do not lack Prs. These are not inflected, at least synchronically, and are followed by a governed term that takes partitive case with most of them, as illustrated in (53) and (54), and various other cases (abessive, allative, comitative, elative) with a few others. For example, as stated in Grünthal (2003: 76), "[I]n addition to the partitive case, some Veps prepositions denoting path, circum-spatial or comparative relation, govern a local case". Interestingly, Veps also has the fairly rare use of a comparative suffix following the Pr *ede* "in front of", so that *ede-mba*, in (55), should be literally translated as "(more) in front (than)":

(51) FINNISH (Grünthal 2003: 67, 73, 106, 107)
    a. *tul-laan   järve-n   ranta-an*
       come-PASS lake-GEN shore-ILL
       'we come to the shore of the lake'

    b. *ää-i-ä   kuuluu   ranna-sta päin*
       voice-PL-PARTV sound.3PL shore-ELAT from
       'voices can be heard from the shore'

    c. *se-n   punaise-n talo-n   ede-ssä*
       the-GEN red-GEN house-GEN front-INESS
       'in front of the red house'

(52) ESTONIAN (Grünthal 2003: 110)
    a. *ta   tööta-s   kiriku   see-s*
       (s)he work-IPF.3SG church[.GEN] inside-INESS
       '(s)he worked in(side) the church'

    b. *ta   tööta-s   kiriku-s*
       (s)he work-IPF.3SG church[.GEN]-INESS
       '(s)he worked in/for the church'

(53) FINNISH (Grünthal 2003: 166)
    hän   matka-si   pitkin mer-i -ä
    (s)he travel-IPF.3SG along sea-PL-PARTV
    '(s)he travelled over the seas'

(54)   ESTONIAN (Grünthal 2003: 166)
       tõtta-si-me   **piki**   *kõnnitee -d*
       rush-PST-1PL   along   pavement-PARTV
       'we hurried along the pavement'

(55)   VEPS (Grünthal 2003: 76)
       išt-ta   *ede-mba*   *päčiš-päi*
       sit-INF1   front-CMPR   stove-ABL
       'to sit closer in front of the stove'

The important typological and general linguistic fact shown by examples (51)–(55) is that in Finnic languages an Adp-phrase typically does not consist only of an Adp and a noun, but includes case affixes or simple Adps on the noun, and very often on the Adp itself. In many Altaic languages, Adp-phrases have a structure comparable to what we find in Finnic languages, as shown by example (56), from Evenki. The same is true of Turkish, as shown by example (57), containing *iç* "inside", that is one among the many noun-derived Pos of Turkish, others being *geri* "behind", *kadar* "until", *sonra* "after", *itibaren* "from", *rağmen* "despite"; the last two are, in fact, borrowed from Arabic nouns to which Turkish case endings are added, as in *tarafından* "by", a calque of Arabic *min ṭarafi*, with the Turkish ablative case ending *-dan*, a calque of Arabic *min*. We notice in (57) that when the governed term is definite, the adnominal relationship is marked both on it by the genitive and on the inflected Adp by a possessive suffix. Besides, in (56) we notice that, as in the Finnish example (41) above, the inessive case suffix precedes the possessive marker:

(56)   EVENKI (Tungusic, Altaic, Russia) (Kilby 1983: 58)
       kalan   *dō-dū-n*   *ulle-we*   *nēce*
       pot   inside-ILL-3SG.POSS   meat-ACC   she.put
       'she put meat into the pot'

(57)   TURKISH (M. Alacaklı pc)
       bahçe-nin   *iç-i-n-de*
       garden-GEN   inside -3SG.POSS-LIG-INESS
       'in the garden'

Mongolian displays a construction similar to that found in Turkish, although it has some Pos, governing the plain stem, like *deer* "on", *doro* "under", *dotoro* "in", *teeši* "in the direction of". The adpositional constituents of Mongolian Complex Adps are grammaticalized nouns mostly governing the genitive, like *dunda* "in the middle of", *gadaa* "outside of", *xoino* "behind". Some Mongolian Complex Adps govern other cases: dative-inessive, ablative, comitative.

As in Finnish, noun-derived Adps themelves can be inflected for case. We thus have examples such as:

(58)   KHALKHA MONGOLIAN (Mongolic, Altaic, Mongolia, China) (Buck 1955: 30)
       širee-n   deer-es
       table-GEN on-ABL
       'from above the table'

Mongolian also has verb-derived, that is converbal, Complex Adps (cf. Section 3.4.4.2).

Basque exhibits a structure comparable to that of Evenki and Turkish:

(59)   SOULETIN BASQUE (Coyos 2005: 76)
       üre-a-ren   gain-en   ttottotze-a
       gold-ART-POSS.GEN above-INESS sitting-ART
       'sitting on gold'

Let it be recalled that, as shown by example (59), the Basque Po *gain* "above", which requires the genitive, comes from a noun: in this example *gain* is itself inflected in the inessive case. The same is true of other Basque Pos marking static positions in space and constituting Complex Adps with case suffixes: *kanpo* "outside of", which requires the instrumental, *atze* "behind", *aurre* "in front of", *azpi* "below", *barne* "inside of", *albo* "beside", which all require the genitive.

The next group of languages to be considered includes Arabic, Georgian, and Tibetan. The adpositional constituent of Complex Adps in Arabic may be either an old Pr or a more recent one. Some Arabic Prs belong to the older stage of the language and are monosyllabic. The main ones are *bi* "in; by; with", *fī* "in", *ka* "like", *li* "to", *min* "from". Most of the others are produced by the grammaticalization of nouns in the accusative, which have become adverbials and then have started to govern a term that follows them (cf. Section 3.4.5). This is the reason why, traditionally, they are sometimes called verbal nouns, or, following the traditional terminology of Arabian grammarians, maṣdars. The most common ones (both classical and dialectal) are *'ala* "on", *ba'da* "after", *ḥatta* "up to", *fawqa* "above", *ma'a* "with", *qabla* "before". All Arabic Prs, whether monosyllabic or disyllabic, require the oblique case, marked by -*i*, considered as equivalent to the genitive-dative by western specialists of Arabic, and called "indirect" in the Arabian grammar tradition. This regular oblique government is the reason why Arabian grammarians of the Middle Age called the Prs of Arabic *ḥurūf al-ḥafḍ.*, which means "letters which require the suffix -*i* [oblique marker] (on the following word)". The importance given by

mediaeval Arab grammarians to the case required by Prs led them to count as Prs, only because they also require the genitive, some words which would not be so treated in modern typological linguistics. Thus, *rubba* and *wa* (coordinator of Modern literary Arabic), both sometimes used with the meaning "many a" in Classical Arabic, are held to be Prs, respectively, by Ibn Aǧurrūmī (1290: 2, l. 5) and Az-zaǧǧāǧī (337/949) 1957: 72. ll. 9–11).

In Georgian, Pos behave in fairly different ways, since only one of them, *mde* "until", requires the "adverbal" case, while all other Pos require either the dative, like *chi* "in", *tan* "near", *ze* "on", etc., or the genitive, like *dros* "during", *gamo* "because of", *kvech* "under", *tvis* "for (as in *ded-is tvis* (mother-Gen for) "for mother"), etc. Some Georgian Pos are themselves, like those of Finnic languages, inflected with case suffixes like instrumental -*it* or ablative -*dan*, which appears, for instance, in *uk'ni-dan* "from behind". This structure, which is the most widespread one, is also found in Japanese.

Tibetan has four case suffixes marking core arguments and main spatial complements: they are ergative/instrumental, comitative, inessive/allative/ dative, and ablative. Most other relations are encoded by Complex Adps of a type comparable to that of Turkish, Finnish, or Basque, that is made of a noun-derived element which requires, on the governed term, the genitive marker -*gi*, and is itself marked by one of these cases. An example is given in (60):

(60)   TIBETAN (Bodic, Tibeto-Burman, Sino-Tibetan, China) (DeLancey p.c.)
   a. *rkubkyag-gi mdun-la*
      chair-GEN   front-INESS
      'in front of the chair'

   a'. *rkubkyag-gi mdun-nas*
      chair-GEN   front-ABL
      'from in front of the chair'

   b. *rkubkyag-gi rgyab-la*
      chair-GEN   back-INESS
      'behind the chair'

   b'. *rkubkyag-gi rgyab-nas*
      chair-GEN   back-ABL
      'from behind the chair'

We now come to the African languages. Complex Adps are less widespread in African languages, to the extent that case affixes proper are not, themselves, a frequent phenomenon in Africa. Complex Adps, therefore, are found in African languages with case affixes. For instance, Kanuri, which has almost no simple Adps, has many Complex Adps. These Complex Adps take a form

comparable to those we have seen above for other languages, except that the case marker of the grammaticalized noun functioning as the adpositive constituent of the Complex Adp must follow the genitive marker of the governed term, instead of following the Governed term itself. Thus, only (61a) is acceptable:

(61) KANURI (Saharan, Nilo-Saharan, Nigeria, Cameroon, Sudan, Chad, Niger) (Lukas 1937: 19)
    a. *súro   fátò-ve-n*
       interior compound-GEN-ABL
       'inside the compound'
    b. **súro-n fátò-ve*

Thus, the word-order constraints in this language make it obligatory to say "interior compound of in" (cf. Section 2.2.2.4.c for comparable facts). In other words, the case affix in such Complex Adps is in a position reflecting the fact that it is treated as governing the whole noun phrase with adnominal genitive.

In Section 2.2 I studied some function-marking strategies and showed that Adps and case affixes, despite their functional equivalence, are different, and may be combined, yielding Complex Adps. Not all cases, though, can be Adp-governed. Thus, for the VOC, an off-syntax case in terms of the 3 Viewpoints Theory (cf. Section 1.4), one can mention only classical Arabic, which has *ya 'ami:ra l-mu'mini:n* "O prince (ACC) of the believers!".

It is now time to characterize Adps with respect to their relationships with the terms they govern. This will be done in the following section.

2.3 Adps and governed terms

It is a part of the definition of an Adp that it is a function marker governing a term which it thus puts in relationship with a syntactic head. This implies that a single Adp, provided it is identified as such whatever its form and degree of morphological complexity, is sufficient to do this job. When two Adps seem to govern the same term, one of them really governs the whole Adp-phrase of which the other one is a member, as studied in Section 2.3.2.2.c below.

Other word-classes have a function similar to that of Adps with respect to the predicate. However, these word-classes distinguish themselves from Adps in two different ways. Either they are ungoverning: such is the case of adverbs, compared with Adps in Section 2.3.1 below. Or they do not govern the same term as Adps: such is the case of conjunctions, studied in Section 4.1.3.2.a because they require a treatment in syntax. I will then give details about

the various types of complements that Adps may govern (2.3.2), and finally I will examine the size of the governed term (2.3.3).

2.3.1 *Adps vs. adverbs*

2.3.1.1 *Adps as transitive adverbs*
Western scholars have long considered that Prs, in classical Indo-European languages, come from adverbs. Sanskrit, a language familiar to the founders of Indo-European philology, which preceded the birth of the modern conception of linguistics, hardly possesses a clear-cut class of Prs, as stated, among others, by Whitney, who wrote:

> The indeclinable words are less distinctly divided into separate parts of speech in Sanskrit than is usual elsewhere in Indo-European languages—owing to the fact that the class of prepositions hardly has a real existence, but is represented by certain adverbial words which are to a greater or lesser extent used prepositionally.   (Whitney 1889: 403)

Among western linguists of the twentieth century, also interested in Prs rather than in Adps generally, this diachronic conception is less present, but the definition of Prs raises problems related to the idea that there is an equivalence between prepositional phrases and adverbs. Let us start from a traditional definition of a Pr, for example, the one given by Curme for English:

> A preposition is a word that indicates a relation between the noun or pronoun it governs and another word, which may be a verb, an adjective, or another noun or pronoun.   (Curme 1935: 87)

The close relationship, expressed by this sentence, between the Pr and the element it governs has been contested by various linguists, based on the other relationship which is central to this definition, namely the one between the governed noun and the head with respect to which the Adp-phrase functions as a dependent element. Adps, because they govern a term which they put in relationship with a head, are often considered as transitivized adverbs, or, conversely, adverbs as detransitivized Adps.

Such a treatment is found in a number of studies, in which only Prs are taken into account, given that their authors, mainly European scholars, do not deal with postpositional languages. Jespersen considers adverbs, prepositions, conjunctions, and interjections as one single class, which he labels "particles"; he writes (1924: 88s) that there is no functional difference between (62) and (62'), nor between (63) and (63') or (64) and (64'):

(62)   *he was in the house*

(62')   *he was in*

(63)   *he had been there **before** breakfast*

(63′)   *he had been there **before***

(64)   ***after** he had arrived*

(64′)   ***after** his arrival*

According to Jespersen, in (62) and (62′), where reference is made to place, *in* is a single part of speech, rather than a Pr in one case and an adverb in the other; the same is true of *before* in (63) and (63′), where reference is made to time. He therefore views *in* in (62′) and *before* in (63′) as complete, unlike their uses in (62) and (63), where they are incomplete, since a complement follows them. He argues that one does not treat an incomplete (i.e. transitive) verb as a word-class distinct from that of a complete (i.e. intransitive) one. As for *after* in (64), Jespersen says that there is absolutely no reason to treat it as belonging to a distinct word-class of conjunctions. Thus, in his opinion, neither the presence, nor the nature, of a complement are sufficient criteria to split these morphemes into three different classes: just as the difference between a clause in (64) and a noun in (64′) is not enough to dismiss the simple statement that a conjunction is a Pr which governs a clause, similarly, the presence or absence of a complement does not change the fact that in both (62) and (62′), as well as in both (63) and (63′), there is an adverbial complement of a verb.

In the same vein, according to Frei (1929: 187), "une préposition n'est autre chose qu'un adverbe transitivé et, inversement, un adverbe une préposition intransitivée". Similarly, Bally writes (1941: 17): "Les adverbes sont des prépositions à régime implicite". These statements of the first half of the twentieth century are not new. In the sixteenth century, Melanchthon wrote (1560: § 4): "Cum amittunt praepositiones casum, fiunt adverbia".

All this explains why some linguists characterize Prs as being, in fact, "prepositional adverbs" (Quirk *et al.* 1985: 662), a label taken over by Jaworska, who suggests (1988: 173), in agreement with Emonds (1972: 547) and Jackendoff (1973: 346), that "one may be missing a generalization by placing [*before* in (63) and (63′)] in two separate word-classes". The symmetrical labels, namely "intransitive prepositions" and "adverbial prepositions", also appear in other works, respectively McCawley (1988) and Herrity (2000). Authors dealing with western languages, in which postpositions are few or absent, are not prone to recognize them when they appear. This could explain the use of another notion, that of "half adverbs", proposed by Charnley (1949: 277) to characterize *through* in examples where this word is postposed to its governed term.

2.3.1.2 *Ungoverning Adps, primary vs. secondary Adps*   The foregoing does not mean that Adps cannot form adverbs with their governed term when this association reaches a certain degree of freezing, as in German *trotz-dem* (despite-this) "however", or *dem-entsprechend* (to.this-conforming) "in conformity with this", or adverb-like and partially frozen associations in which the non-adpositional element cannot be replaced by another word, for example French *après coup* "after the event", or English *after all*, which has a literal equivalent in other languages, for example French *après tout*, and which cannot be replaced by *in the aftermath of all*. Nor does it mean that Adps cannot sometimes appear on their own, for example in frozen expressions like *by and large*. They can also occur alone, without a governed term, but with a nominalizing morpheme, such as articles, as in (65a) and (65b), where the Prs function like nouns, which is also the case in (65c).

Adps may also appear without a governed term because the entity to which the governed term, if it were present, would refer belongs to the situational context, as for *in* in example (62′) and *before* in example (63′). This entity may also belong to the linguistic context when it has already been mentioned in the same oral or written text: this is shown, in Kabyle Berber, which possesses no relative pronoun, by (66), where the noun to which a relative pronoun, if it existed, would refer has appeared in a preceding sentence. Finally, the entity to which the governed term refers may belong both to the situational and the linguistic context, as in (67) and (68):

(65)   a. *the **pros** and **cons***

   b. *le **pour** et le **contre***

   c. *les **pour** levez le doigt!*
      'those who are for (that) please raise your hands!'

(66)   KABYLE BERBER (Berber, Afro-Asiatic, Algeria) (Hagège 1984: 367)
       a   ḥ   təskər   aɣrum
       the.one   with   make.PST.F.3SG   bread
       'that with (which) she made bread'

(67)   a. SPOKEN FRENCH
          i. *je   n'aime   pas   ce   chapeau; si tu   viens **avec**,*
             1SG.S   NEG-like NEG   this hat   if 2SG.S come   with
             je   te   mettrai   dehors
             1SG.S   2SG.O   put.FUT   out
             'I don't like this hat; if you come with it on your head, I'll put you out'

    ii. *c'est étudié pour*
       'it's meant to be fit'

    iii. *nous nous tenions à côté*
        'we were standing nearby'

  b. i. GERMAN
       kommst du mit?

    ii. US or SOUTH AFRICAN ENGLISH
       are you coming with?

(68) GERMAN (Marcq 1972: 16, 100, 105, 110)

  a. *er   setzt   den   Hut auf*
    3SG put.PRS.3SG ART.M.ACC hat   on

  a'. *he puts his hat on / he puts on his hat)*

  b. *er   setzte   Wasser auf*
    3SG put.PST.3SG water   on
    'he warmed water (in a pan)'

  c. *der   Topf ist   dreckig, lassen Sie*
    ART.M.SG.NOM pan be.PRS.3SG dirty   let.PL 2PL.POL
    bitte   den   Lumpen unter
    please ART.M.SG.ACC rag   below
    'the pan is dirty, put the rag under (it) please'

  d. i. *die   Sonne schimmert   durch*
      ART.F.SG sun   flicker.PRS.3SG across
      'the sun is flickering across (the clouds)'

    ii. *die   Sonne durchschimmert   die   Wolken*
      ART.F.SG sun   flicker.across.PRS.3SG ART.PL cloud.PL
      'the sun is flickering across the clouds'

  e. i. *der   Metzger wickelte   ein Stück Papier*
      ART.M.SG.NOM butcher roll.PST.3SG one piece paper
      um
      around
      'the butcher rolled a piece of paper around (the meat)'

    ii. *der   Metzger umwickelte   das*
      ART.M.SG.NOM butcher wrap.PST.3SG ART.Nt.SG
      Fleisch in ein Stück Papier
      meat   in one piece paper
      'the butcher wrapped the meat in a piece of paper'.

pro and *con* (an abbreviation of *contra*) in (65a) («translated» into French by (65b)) are obsolete, or very literary, English Prs derived from Latin. They are

used in frozen expressions only. The sentences with ungoverning Prs in (67a) belong to spoken French. The use of *mit* in (67b.i) is limited to certain verbs, among others those which refer to an activity and especially to a movement made in association with someone else; the same can be said of *with* in the English equivalent of (67b.i), that is (67b.ii), if at all possible in British and American English. Example (68a) and its English equivalent (68a′) refer to a movement by which something is put on a body part. However, this kind of use of German Prs is not limited to body parts, as shown by (68b–e), where the governed term, which does not occur explicitly after the Pr, may be deduced from the context. This can be observed by considering that along with (68d.i) and (68e.i), one can find (68d.ii) and (68e.ii), with a preverb which is homonymous with the Pr, and an explicit object. Thus we see that in one language at least, namely German, it is not impossible for an Adp to occur without a governed term, when the latter is recoverable from the context.[3]

The absence of a governed term is one of the criteria used by Lehmann (1985) to distinguish between primary and secondary Adps. According to him, secondary Adps may be either simple—consisting of only one element, like English *in, of, on,* etc.—or complex—consisting of two or several elements, and better called compound—as will be seen in Section 3.3.2. Moreover, Lehmann claims, as recalled by Himmelmann, that secondary Adps

have concrete (rather than grammatical) meanings, are polysyllabic and often also polymorphemic, may be used intransitively, and tend to take genitive or oblique complements [, ... whereas primary] adpositions are always simple and monomorphemic, cannot be used intransitively, have grammatical meanings, are mono- or bisyllabic, and tend to take nominative and accusative complements.

(Himmelmann 1998: 319)

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[3] The absence of a governed term in examples (67a) and (67b) is not the same phenomenon as the stranding of Adps in questions or relative clauses, illustrated by

i. *whom is she referring to?*

and

ii. *this is the person we talked to you about.*

In the first of these structures, the governed term is the first word of the sentence, but the Adp can also appear before it. Similarly, the relative pronoun does not appear in the second sentence, since it is optional, but if it is used, it may appear, as well, either after its head (*person*) or after *about* in case this Adp is not stranded, yielding, successively:

iii. *this is the person whom we talked to you about*

or

iv. *this is the person about whom we talked to you.*

As a matter of fact, it is not difficult to find languages in which Adps with a grammatical meaning are neither simple, nor monomorphemic. Such is, for instance, the case of Israeli Hebrew *'al-yedei* and Turkish *tarafindan*, both meaning "by". Even granting that the Lehmann and Himmelman distinction in fact applies to English, examples (67a–b) show that Adps meaning "with", which many linguists will take to be a grammatical meaning, can be used intransitively. Thus, the distinction between primary and secondary Adps does not seem to be an easy tool to work with.

2.3.2 *The various types of terms Adps may govern*

2.3.2.1 *Identifying the head in Adp-phrases* Before presenting the various types of governed terms, it is important to stress that the very notion of government corresponds to the fact that Adps build a relationship between the term associated with them and a syntactic head, and are therefore the tool without which, in most cases other than those of unmarked adverbial complements (cf. Section 4.1.4), this term would remain isolated in a sentence. Being decisive to the relationship between the Adp-phrase and other syntactic units, the Adp is the central syntactic part of the Adp-phrase, which means that the Adp is a morphosyntactic locus. This entails (cf. Zwicky 1985: 10, 16–18) that the Adp should be identified as the head of the Adp-phrase, the term "head" referring here to this relationship, although it is also used to refer to the relation set up by the Adp between the governed term and a term, in the sentence, on which the governed term depends. Himmelmann (1998: 346) considers that secondary Adps, which he distinguishes from primary Adps as just mentioned above, "are clearly heads in adpositional expressions", but that "it is not so obvious and uncontroversial as has sometimes been assumed that this also holds for primary Adps". He adds, however, that

the question is not so much whether or not primary Adps are heads, but whether they are lexical or functional heads [and that] at least in the case of a subset of primary Adps (i.e. grammatically used ones), the head features are distributed among the Adp and the noun.   (Himmelmann 1998: 346)

This point is also made by Zwicky (1993: 303). If, instead of taking over the distinction between primary and secondary Adps, one just retains the notion of core function as one of those an Adp-phrase can have, admittedly seldom (cf. Section 4.1.2.2), one can say that it is possible to apply to them what Zwicky and Himmelmann say of primary Adps as defined with respect to the head features. Adp-phrases can thus be characterized, along with other phrase types, by a precise criterion: the nature of the head. One can generalize, as

applying to all Adp-phrase types, what Jaworska writes about prepositional phrases:

Just as Noun-phrases are phrases headed by nouns, verb phrases (VPs) are phrases headed by verbs, and adjective phrases (APs) are phrases headed by adjectives, so prepositional phrases (PPs) are phrases headed by prepositions.   (Jaworska 1994: 3304)

2.3.2.2 *Types of governed terms*   The types of possible terms governed by Adps are given in the following list, with those terms where this happens most frequently at the top of the list and the least frequent ones at the bottom:

(i)	personal pronouns	*more frequent*
(ii)	noun-phrases	
(iii)	demonstratives	↓
(iv)	indefinite pronouns	
(v)	relative pronouns	
(vi)	verbal nouns	
(vii)	clauses	
(viii)	possessive markers	
(ix)	interrogative pronouns	
(x)	Adp-phrases	
(xi)	subject-predicate associations	*less frequent*

Possessive adjectives and subject-predicate associations will be studied, respectively, in Sections 3.4.6.6 and 4.1.3.1; clauses will be studied, along with verbal nouns, in section 4.1.3.2. Here, I will examine, as governed terms of Adps, noun-phrases, personal and possessive pronouns (2.3.2.2.a), demonstrative adjectives (2.3.2.2.b), and Adp-phrases (2.3.2.2.c).

2.3.2.2.a **Noun-phrases, personal and possessive pronouns as governed terms of Adps**   It seems that among the eleven different types of governed terms in the list above, the first seven are by far the most frequently occurring. They are illustrated throughout the present book. With respect to noun-phrases and possessive pronouns, an observation is in order. Certain Adps require, because of their meaning, a governed term which is a plural noun-phrase, or a noun-phrase made of two coordinated elements. Such is the case for English *between* or *among*. In certain languages the Adp having this meaning is itself repeated, associated with a governed term which can be a noun, but also a possessive pronoun when the Adp has a nominal source, as in Arabic, illustrated by example (91a–b) in Section 3.4.6.6. This case is different from the coordination of two Adps governing the same term, which is then taken to have two different adverbial meanings.

With respect to person markers as Adps' governed terms, it should be stressed that when these markers are distributed between two paradigms, one of them only is chosen as providing possible governed terms. Thus, in Tupi-Guarani languages like Guarani and Émérillon, only markers belonging to the inactive pronominal paradigm can precede Pos, for example Guarani *še-ndive* (1SG.INACT-with) "with me", Émérillon *i-'ar* (3SG/PL.INACT-on) "on it".

2.3.2.2.b **Demonstrative adjectives**   Examples of these governed terms are found in expressions such as *in this regard, in that respect* and so forth. If one rejects the analysis of these expressions as made of *in* + *this regard* or *this respect*, one can consider that the reason why they contain an anteposed *this* instead of a (semantically equivalent) postposed *of this* is that *in regard of, in respect of,* etc. are Compound Adps (cf. Section 3.3.2.1) built on a noun that keeps its ability to function as a seeming head with respect to a demonstrative adjective.

2.3.2.2.c **Adp-phrases as governed terms of Adps**   This structure is not the one illustrated by examples such as:

(69)   *the baby crawled **from under** the bed*

(70)   (Shopen 1972: 100)
        *Ralph emerged from back **over behind** the barn.*

Admittedly, there is room for discussion here, since in semantic and pragmatic terms the place from which the baby crawls is not the bed but the position under it, and the place over which Ralph emerges is not the barn but the position behind it. A possible analysis, however, would treat the groups *from under* and *over behind* as Compound Adps (cf. Section 3.3.2.1).

Adp-phrases as governed terms of Adps are not a violation of Sell's (1985) statement (cf. Section 2.2.3.1), since one of the two Adps observed in such a structure is not on the same syntactic level as the other one. The most frequent Adps with Adp-phrases as their governed terms are spatial and temporal Adps. This can be explained by the fact that spatio-temporal meanings may require further specifications. This applies, in particular, to two meanings often expressed by Adps in languages, namely those which refer to the beginning and the end of a period of time, these two moments being themselves presented, sometimes, as datable by reference to an event happening earlier or later. This is illustrated by example (62) in Chapter 4, where the moment since which "Adam has been living here" is datable as "before the war": in this structure the Pr *since* governs the Adp-phrase *before the war*. One finds a similar structure in such French sentences as (71a) and (71b):

(71)   FRENCH

    a. *je l'ai cru jusqu'il y a une heure*
       'I believed it until one hour ago'

    b. (Meillet and Cohen 1952, t. 2: 753)

ce	*groupe* [...]	*occupe*	*la*	*vallée*	*du*	*Nil*
DEM	group	occupy.3SG.PRS	ART	valley	of.the	Nile

depuis	*Assouan* [...]	*jusque*	*non*	*loin*	*de*	*Fachoda*
from	Assouan	till	not	far	from	Fachoda

       'this group [of languages] occupies the Nile valley from Assouan
       down to not far from Fachoda'

In (71a), *il y a une heure*, an Adp-phrase which begins with the Compound Pr *il y a* (cf. 3.4.4.2) is itself the governed term of the Pr *jusqu'*. In (71b) *non loin de Fachoda*, which is the prepositional phrase functioning as the governed term of the Pr *jusque*, is itself constituted by a governed term *Fachoda* and a Compound Pr *non loin de* (cf. example (100) in Section 3.4.6.7 and comment).

    Other examples of an Adp-phrase functioning as the governed term of an Adp are (72a) and (72b):

(72)   TARIANA (Arawakan, Brazil, Colombia) (Aikhenvald 2003: 229 and 232)

    a. *di-a-pidana*   *te*   *diha-na*   *dalipa-se*
        3SG.NF-go-REM.PST.REP until ART-CL:VERT near-LOC
        'he went until near-by the hill (vertical one)'

    b. *sewi-wani*   *di-sita-khani-pidana*
        quick-CL:ABSTR 3SG.NF-shoot-away-REM.PST.REP
        di-na-nha   *mača* *di-thi-da-pe*   *pekuri*
        3SG.NF-O-PAUS good 3SG.NF-eye-CL:SPH-PL between
        maña
        in.middle
        'he shot away quickly at him, right in the middle of (the space)
        between his eyes'

In example (72a) the Pr *te* "until", itself very likely to be a loanword from Portuguese *até*, but well assimilated in Tariana, governs the Adp-phrase *diha-na dalipa-se* "near the hill", in which the Po *dalipa* "near", is followed by a locative case marker *-se* (although *-se* may also be omitted, according to Aikhenvald *ibid.*). Another analysis would be possible, on which *te ... dalipa-se* would be treated as a Compound Adp. However, one reason at least suggests one should give up this analysis: the governed term is inserted here between the two constituent parts of what one could want to call a Compound Adp; this, resulting in a circumposition, would be a unique case

among all attested Compound Adps (cf. 3.3.2.1 and examples mentioned therein); semantic arguments are weaker, since in (72a), although one can say that the movement leads until near-by the hill rather than until the hill itself, one can also claim that "until near-by" is one among many possible directions.

The use of *maña* as in example (72b) is submitted in Tariana to certain restrictions. For example, unlike many Tariana Pos, *maña* does not take case-markers. However, *maña* often co-occurs with other Tariana Pos, and (72b), in which *maña* governs *dithidape pekuri*, is another illustration of an Adp governing a postpositional phrase.

2.3.3 *Size of the governed term*

A point seldom discussed in works on Adps is the size of the governed term. It can be much longer when it is a clause than when it is a noun-phrase, as shown by comparing (73a) with (73b):

(73)   a. *we will leave or not, depending on* **his choice**

   b. *we will leave or not, depending on* **whether he agrees on the place we have chosen.**

Moreover, it is interesting to stress that some ambipositions (cf. 3.2.2) are not associated with a governed term of the same size when they are preposed and when they are postposed. Thus, in a study devoted to *notwithstanding* and using several different corpora, Minugh states that

the prepositional form is generally associated with a far longer noun-phrase than the postpositional form, more than double in all cases, except the relatively demotic *Miami Herald* and *USA Today.*   (Minugh 2002: 223)

This is also true of the French equivalent of *notwithstanding*, namely *non-obstant*, whose main use as a Po is in the archaic expression *ce nonobstant* = *this notwithstanding*, whereas in English, even though the postpositional use is associated with short noun-phrases, one can say *this claim notwithstanding, this rule notwithstanding*, etc.

In conclusion, it must be stressed that the nature of the governed term is an important element of the characterization of Adps. It appears that governed terms are very diverse, in size as well as in form and in type of word-class. But their occurrence is normally free.

In Section 2.3 I have characterized Adps with reference to other word classes which are close to them with respect to function, but not to existence and type of government, namely adverbs and conjunctions. I have also studied in detail the governed terms of Adps, both as regards their nature and in relationship

to their size. In the following section I will characterize Adps as distinct from other word-types that might be mistaken for Adps.

2.4 On word-types that might be mistaken for Adps

We will see in Chapter 3 that some elements which have been treated as (not yet quite) similar to Adps can in fact be assimilated to them (cf., for example, verb- and noun-derived Adps in sections 3.4.4 and 3.4.5). In the present chapter I will provide arguments to show that, conversely, certain words or word groups that have been assimilated to Adps should be distinguished from them. These arguments make it easier to characterize and define the object of the present study. It is therefore time now to show, in this light, why certain word-types which might be mistaken for Adps cannot be so treated. I will first examine those that occur inside the verb phrase (2.4.1), then those that occur outside (2.4.2).

2.4.1 *Verb-phrase-internal word-types that might be confused with Adps*

Since Adp-phrases depend on an external word or phrase which functions as their head, they fall within the sentence scope, not the word scope. As a consequence, there should normally be no risk of a confusion of Adps with word-types that do not have this characteristic. Few linguists, even among orthodox followers of early transformational grammar, would consider that English instrumental compounds like *moonlit, time-honoured, shop-worn*, or *adposition-marked* should be analysed, at least on the "surface", as containing an explicitly marked agent, including if they make up for the supposed gap by inserting a word like *by*. There are, however, VP-internal word-types that might be confused with Adps. Five such word-types will be presented below. The first one, preverbs (2.4.1.1), does not do the job of Adps but is historically derived from them, and is easy to confuse with them in a number of situations. Nor does the second type, direction-pointers (2.4.1.2), do the work of Adps, although it has something in common with them from a semantic perspective. The third, fourth, and fifth types—direct/inverse morphemes (2.4.1.3.a), locative stems (2.4.1.3.b), and applicatives (2.4.1.3.c)—are those of elements which do, in various ways and to various extents, some of the syntactic and semantic jobs of Adps, but should be distinguished from them, as we will see. It will appear that the main reason for the necessity of this distinction is that none of the morphemes belonging to these three word-types builds any direct and close relationship with a unit in the sentence nor links this unit to a syntactic centre with respect to which the unit in question would constitute a distinct word.

2.4.1.1 *Preverbs*   The confusion between Prs and preverbs in a number of Indo-European languages is frequent among ancient grammarians, as observed by Brøndal, who mentions (1950: 12) Priscian (fifth century) and Vossius (seventeenth century), while stressing that both of them hesitated on this matter. Brøndal also notes that up to the eighteenth century, German preverbs like *ant-*, *be-*, *ent-*, *ge-*, *ver-*, *zer-* were presented as "Unabsonderlinge", namely as unseparable Prs. The reason for this treatment is not difficult to seek. In fact, in Indo-European languages, adverbs and Prs derived from them are the historical sources of preverbs, as recalled in Saussure (1916= 1962: 247). According to the Geneva master, Indo-European had no Prs nor compound verbs, but only case endings and morphemes that made the meaning of the verb more precise. Such is still, Saussure argues, the situation in "primitive Greek" (corresponding to what is called Mycenaean today since the discovery, in 1953, of the Linear B syllabic script). Saussure stresses that in a sentence such as

(74)   PRIMITIVE GREEK (Saussure 1962: 247)
  óreos   baínō   káta
  mountain.GEN walk.1PRS.SG down
  'I am coming from the mountain',

the first two words already mean by themselves "I am coming from the mountain", the genitive having here the sense of an ablative, and that *káta*, a kind of adverb, simply adds the meaning "by going down". Later, two forms of evolutions took place. One of them yielded:

(74′)   *katà óreos baínō,*

where the tone and stress changes on *katà* and its contiguity with the noun show that the status of *katà* has become that of a Pr; this Pr constitutes the adverbial complement of the verb *baínō* by being associated with *óreos*, which it now governs and whose source-genitive meaning has been taken over by the newly formed Pr. This points to the fact that the genitive ending will disappear in the future, admittedly much later, in the form of Greek which confirms the changes occurring around the seventh to eighth centuries in the Byzantine (after the Hellenistic) koinê, that is in spoken modern demotic Greek; in this form of Greek, only some Prs borrowed from *katharevoussa* (archaic literary Greek) still accept the genitive after a Pr (cf. Mirambel 1959: 179).

  The second kind of evolution yields, from (74) and (74′),

(74″)   *kata-baínō óreos,*

where what formerly was *káta* has become an unstressed preverb, yielding with *baínō* a new verbal type and sentence structure (cf. Imbert 2008 on emergent manifold preverbation in Homeric Greek (and, reversely, preverb falling-off in early modern English)). Another possible process is a postpositional use of Prs, becoming enclitics, then procliticized to the verb, as is suggested by Oniga (2005: 223). Thus, in Latin, starting from

(75) **ad aliquem eo**
       towards someone.ACC go.1PRS
       'I am going towards someone',

the evolution would yield

(75') **ad aliquem eo** → *aliquem **ad** eo* → *aliquem-**ad** eo* → *aliquem **adeo***

It appears that the presence of an accusative case in the original formula *ad aliquem eo* contributed to make it natural to generalize the object accusative of preverbed verbs as well as the twice-marked structure with both a PrP and a VP containing the preverb historically derived from the Pr in this PrP, since in classical Latin *aliquem adeo* alternates with

(75'') **ad aliquem adeo.**

Another fequent diachronic path is the one leading from Po to preverb, as exemplified by several Amerindian languages, such as Rama (Chibchan), Nadëb (Vaupés-Japurá, Brazil) and Athapaskan languages, as well as, to some extent, in ancient Greek (cf. Craig and Hale 1988; Craig 1991; Luraghi 2003; Givón 2006).

The distinction between Prs and preverbs has in fact a morphological and syntactic justification, rather than a semantic one. This is shown by the fact that the evolution which occurred in Greek and Latin as illustrated by these examples does not change the meaning. This is less true of some English preverbs: in *understand* and *withstand*, for example, a literal analysis does not yield the meaning resulting from the addition of meanings. Many Latin morphemes can function both as preverbs and Prs, including *ab, ad, ante, circum, contra, cum, de, ex, extra, inter, ob, per, post, prae, praeter, pro, retro, sub, subter, super, supra, trans.* The same is true of those, among German preverbs, which (unlike *be-, er-, ver, zer-* or the complex separable preverbs *entgegen, gegenüber, nieder, weiter,* etc.) do not refer to *Aktionsart.* These morphemes: *ab, an, auf, aus, durch, ein, mit, über, um, unter,* for example, are also able to function as (separable) preverbs when the governed term of the homophonous Pr is omitted because it is suggested by the context, as illustrated by examples (68d–e) in Section 2.3.1.2. These

morphemes often constitute, with their governed term, Adp-phrases which become adverbs, as illustrated by *bergauf* "on the mountain", *kopfüber* "above the head", *talab* "from the valley", *zweifelsohne* "without (any) doubt", etc.

Furthermore, not all German morphemes that are virtually able to function both as (separable) preverbs and Prs really have both uses in all situations. Consider example (76):

(76) GERMAN (Rousseau 1995*b*: 141)
    a. *mit einem*   *Kollegen*   *arbeiten* → *mit-arbeiten*
        with INDEF.ART.M.DAT colleague.OBL work
        'to work with a colleague'

    b. *mit der*   *Hand arbeiten* →   *hand-arbeiten*
        with DEF.ART.F.DAT hand work
        'to work with one's hands'

The possibility, in (76a), vs. the impossibility, in (76b), of being used as a preverb provides an interesting criterion to distinguish between the comitative and instrumentive meanings of the Pr *mit*. In other cases Adp and preverb can both be used, but although the meaning does not fundamentally change, we get two structures: one of them treats a place as the governed term of a spatial Adp and the affected entity as a direct object of the verb, while the other one treats them respectively, through the use of a preverb (optional in English), as the object of the verb and a non-spatial complement, often an instrumental. This choice between two structures is characteristic of Germanic languages like English and German, illustrated in (77) and (78) respectively:

(77)   a. *she smeared vaseline over her skin*
      b. *she (be)smeared her skin with vaseline*

(78)   GERMAN (Rousseau 1995*b*: 140)
    a. *Peter pflanzt*   *Blumen*   *im*   *Garten*
        Peter plant.3SG.PRS flower.PL INESS.ART garden
        'Peter is planting flowers in the garden'

    b. *Peter bepflanzt*   *den*   *Garten mit*   *Blumen*
        Peter plant.3SG.PRS ART.ACC garden INSTR flower.PL
        same meaning as (78a)

Just like German, Norwegian has morphemes which can function either as preverbs or as Prs: *av* "of", *for* "for", *frå* "from", *i* "in", *med* "with", *mot*

"towards", *om* "about, around", *på* "on", *over* "above", etc. In Norwegian as in Latin, German, and Germanic languages more generally, sentences containing the accusative object of preverbed verbs have the same meaning as those containing the corresponding Pr with its governed term, as shown by (79a–b):

(79)   Standard (Riksmål) Norwegian (Germanic, Indo-European, Norway)
        (Faarlund 1995: 69–70)
    a. *dei   tala   ikkje om   framsyninga*
        3PL talk.PST NEG   about performance
        'they did not talk about the performance'

    b. *dei omtala ikkje framsyninga.*
        same meaning as (79a)

Hungarian, to continue with European languages, provides another illustration of the fact that Adps and preverbs are synchronically distinct despite the equivalence between Adp-phrases and transitive preverbed verb-phrases, often used together in sentences of the type exemplified by (80a). Hungarian also has, like German, complex preverbs which have the structure of an Adp-phrase, where the governed term is either a possessive suffix, as in (80b.i), or a noun followed by a case suffix, as in (80b.ii):

(80)   Hungarian (Perrot 1995: 108–9, 118)
    a. *be-men-t   a   ház-ba*
        ILL.PREV-go-3SG.PST ART house-ILL
        'he went into the house' (same structure as Latin (75″))

    b. i. *nek-i* (DAT-3POSS)+*megy* 'go' → *nekimegy* 'to knock', 'to run into'
           után-a (after-3POSS)+*megy* 'go' → *utánamegy* 'to follow', 'to join'

       ii. *hát-ra* (back-SUBL)+*megy* 'go'→*hátramegy* 'to go backwards'
           vég-ig (end-TERM)+*gondol* 'think' → *végiggondol* 'to go over (sth) in one's mind'

To conclude, preverbs, in languages possessing them, should, in synchrony, be distinguished from Prs, despite the frequent historical sameness and the semantic equivalence between the two.

2.4.1.2 *Direction-pointers*   By direction-pointers, I mean morphemes which are constitutive parts of VPs in some languages, and are not preverbs such as defined in 2.4.1.1. Direction pointers are used to orient the action expressed by

the verb towards one of the participants of the speech act. A well-described example is Georgian. In verbal forms with a personal prefix, certain vowels, called "versions" of the verb in classical Georgian grammars, are inserted between this prefix and the stem. These vowels, *i, u,* and *a,* express, respectively, the orientation of the action towards the subject (or some aspect of the process in which the subject is interested), the third person (referring to someone else), and a certain place with which the speaker or someone else is in contact (cf. Vogt 1971: 118–27).

Although these meanings have something in common with those of certain Adps, these incorporated verbal morphemes do not govern any term, and do not constitute an important set comparable to that of Adps in most languages. The same can be said of direction-pointers in another language, Quechua (Bolivia, Colombia, Ecuador, Peru), where the suffixed morphemes -*ku,* -*mu,* and -*pu* are used as tools that orient the action tools that orient the action, respectively, towards the subject, towards a place related to the subject or the object, and towards a noun-phrase referring to another participant (cf. Kirtchuk 1987: 163–9).

2.4.1.3 *Morpheme types that do some of the syntactic and/or semantic jobs of Adps*

2.4.1.3.a Direct/inverse morphemes   Direct and inverse morphemes are a typological characteristic of certain languages in which the verb contains an indication on which words function as subject or object. In these languages, it may be the case that the subject of a transitive verb is more proximate, that is more discourse-prominent, than its direct object in terms of a hierarchy in which human beings, and among them the 1st person pronouns, occupy the highest position. In such a situation the verb takes a special direct morpheme and the direct object takes a non-proximate, or obviative, mark. The reverse may also occur. Therefore, another morpheme, called inverse, indicates that the verb takes a subject that is less proximate than the direct object. Among languages with direct/inverse morphemes, we find those of the Algic family, like Algonquin, Eastern and Plains Cree, Eastern and Severn Ojibwa, Ojibwe, etc., as well as an Araucanian language, Mapudungun (Chile), and others, studied in Givón (ed.) 1994. An example of direct/inverse morphemes is given below:

(81)   ALGONQUIN (Algic, Canada) (Mel'čuk 2006: 246)

    a. *ni-wāpam-ē-ø-w-ø*   *atimw-a*
       1SG-see-DIR-SG-3-SG dog-OBV
       'I see the dog'

    b. *ni-wāpam-ik-ø-w-ø*   *atimw-a*
       1SG-see-INV-SG-3-SG dog-OBV
       'the dog sees me'

We note that the word-order does not change, although (81a) contains a direct morpheme meant to indicate that ego, proximate since it is higher than a dog on the hierarchy, is the subject, and (81b) contains an inverse morpheme because the dog, although less proximate, is the subject. Thus the use of direct and inverse morphemes amounts to pointing to the syntactic functions of subject and direct object, but they do it indirectly, for two reasons: (i) they do not govern a unit in the sentence, (ii) in fact their main purpose is to reflect a semantic and pragmatic hierarchy. They cannot, therefore, be considered as genuine function-markers of noun-phrases like Adps.

2.4.1.3.b **Locative stems**   Some languages which have no Adps possess morpheme types that, in the semantic field of spatial reference, seem to do the job of Adps. Thus, in Klamath, which does not have Adps but does have case suffixes, one of which is an inessive-locative case, other means are used to express directional, but also locational meanings, along with many other non-spatial meanings, for example instrumentive (on this term, cf. Section 5.3.1). They are all expressed by the association of a verb with an affix, the structure being the same for locative-directive suffixes as for instrumental prefixes, as seen by comparing (82a) with (82b):

(82)   KLAMATH (Klamath-Modoc, Plateau Penutian, Penutian, United States) (DeLancey 2003)

    a. *n-qew'-a*
       with.a.round.instrument-break.in.two-INF
       'to break in two with a round instrument'

    b. *wdom-(o)kang-a*
       swim.around-here.and.there-INF
       'to swim around here and there'

Instrumental affixes such as those illustrated by the lexical prefix in (82a) are widespread, as are, in other languages, elements of compounds which come from instrumental nouns. Elements of this kind are found in such English words as *hand-woven*, *man-made*, etc. or in French words which are presently unanalysable but were, formerly, instrumental compounds, typologically similar to these English words: *maintenir* "to keep (*tenir*) with the hand (*main*)", *colporter* "to bear (*porter*) with the neck (*col*)", etc. Such affixes are not found in Klamath only, but in several other families of Amerindian languages such as, for example, Salishan languages (cf. Hagège 1978*b* and end of Section 2.4.1.3.c here on Comox lexical suffixes, most of which are formally distinct from the synonymous nouns).

As for the Klamath category of locative-directive stems, it "is extremely large for a grammaticalized morphological series", according to DeLancey (2000), who, following Barker (1964), identifies at least 133 stems. Their meanings are very diverse, for example "in a tight place, corner, stuck", "taking out of a socket", "with head first", etc. Klamath even uses associations of two morphemes, the first of them a classifying prefix and the second a locative-directive stem, in such a way that these associations function as predicates without any verb between the two morphemes, as in (83):

(83)   KLAMATH (DeLancey 2003)
       *coy   honk   ga'as   **ksaqa:q-damn-a***
       now   NARR   thus   living.object.on.lap-over.and.over-VE
       'now he was lying around in her lap this way'

Such a structure has been described for Achumawi, Atsugewi, Maiduan, Molala, Nez Perce, Numic and Pomoan languages, Sahaptin, Shasta, Washo, and Yana. The striking fact here, as shown by (83), is that although neither of the two morphemes can ever occur independently,

put together they constitute a perfectly good verb stem. There is no obvious reason to identify one of the morphemes as the verbal root and the other as an affix: both are bound forms, of comparable semantic specificity and members of position classes of comparable size [. . .]. Jacobsen (1980) discusses the same problem in the Hokan language Washo, and concludes that there is no compelling basis for identifying one element in such verb forms as a stem and the other as an affix, thus he coined the term "bipartite stems"[. . .]. However we ultimately analyze the locative-directive stems in Klamath and similar languages, it is quite clear that locative-directive stems are in no sense Adps, and indeed—whether we consider them stems or affixes—do not represent any familiar or well-understood category; [. . .] at least in origin, the Klamath locative-directive stems can be identified as verbal.   (DeLancey 2000: 71–2).

Locative stems, just like direct/inverse morphemes, do not govern a unit in the sentence, to the very extent that they blend function marking, which is the job of Adps, with reference both to spatial locations and to entities whose location is thus indicated. Locative stems cannot, therefore, be considered as genuine function markers of noun-phrases like Adps.

2.4.1.3.c **Applicatives**   Applicatives are morphemes which, when inserted into the VP, increase its valency by making the VP able to treat as direct objects various noun-phrases which, without an applicative, are treated as governed terms of case affixes or Adps. A property applicatives have in common with causatives is that both types of morphemes increase the valency of the verb with which they are associated. But despite this common property,

which is reflected in the frequent homonymy of the causative and applicative morphemes (as in Nahuatl), there is one important difference: causatives make it possible to encode agents, rather than other participants, as objects, while applicatives encode into the verb-phrase various kinds of participants. An important work on applicatives is Peterson (2007). My purpose here is, more specifically, to show to what extent applicatives should be distinguished from Adps, especially as applicatives are often historically derived from Adps.

Applicatives should be distinguished from transitivity markers, which direct the action towards the patient, as is observed, for example, in many Austronesian languages, like Indonesian; there is in this language a circumfix *me* (+nasalization of the first consonant of the root, or *ng* if the root begins with a vowel) ... -*kan*, as seen in (84):

(84)   INDONESIAN (Sundic, Western Malayo-Polynesian, Austronesian, Indonesia) (Septiani Wulandari p.c.)

   *dia **me**-m-beri-**kan** kalung   pada   saya*
   3SG *me*-LC-offer-*kan* necklace   ATTR   1SG.FOR
   'she offered me a necklace'

Here the verb *beri* "to give, offer" is associated with the circumfix *me-* ... -*kan*. Similarly, one can form *membicarakan* "to speak about (something)" on the root *bicara* "to speak", and -*kan* can also be combined with the causative prefix *memper-*, as in *memper-dengar-kan* (from *dengar* "to hear") "to make (someone) hear (something)".

Having stressed the difference between appplicatives and transitivity markers, it is now in order to consider the features by which applicatives should be distinguished from Adps. Applicatives are illustrated by African languages such as Chichewa, Fulani, Kinyarwanda, Tswana, Uto-Aztecan languages such as Nahuatl, Arawakan languages like Tariana, Chukotko-Kamchatkan ones such as Chukchi, Australian ones like Kalkatungu, Pitta-Pitta, Yidiny, or isolated ones such as Ainu. In all these languages applicatives are related to complements which are the same as those governed by Adps or case endings. Given this similarity, some linguists consider applicatives to be Adps. Baker, for instance, mentions one of the Bantoid languages that freely display the phenomenon of alternance between the adpositional and the verbal treatment of beneficiaries. His examples are reproduced here as (85a–b):

(85)   CHICHEWA (Bantoid, Benue-Congo, Niger-Congo, Malawi, Mozambique, Zambia, Zimbabwe) (Baker 1988: 229)

   a. *mbidzi zi-na-perek-a*   *msampha **kwa** nkhandwe*
      zebras CL9-PST-hand-ASP   trap   to   fox

    a′. *the zebras handed the trap to the fox*

    b. *mbidzi zi-na-perek-er-a*   *nkhandwe msampha*
        zebras   CL9-PST-hand-*er*-ASP   fox   trap

    b′. *the zebras handed the fox the trap*

Not only does Baker consider *er* in (85b) as an "incorporated preposition", but he even says, based on various theoretical considerations (*ibid.*: 229–34), that (85b′), the English translation of (85b), is derived from (85a′) by movement of *to the fox* to the position immediately after the verb and deletion of *to*, even though in English, unlike in Chichewa and many other languages having the alternance illustrated by (85a–b), there is no "incorporated preposition". Moreover, the applicative *-er-* which occurs in (85b) cannot be treated as an Adp, because such a treatment goes counter to the definition of Adps as governing terms with which they constitute an Adp-phrase; this treatment also contradicts an important characteristic of Adps, namely that they are not derivational elements able to be affixed inside a verb-phrase. This will now be confirmed by the study of the behaviour of elements similar to Chichewa *er* in various languages.

In Fulani, as well as in Classical Nahuatl, applicatives often encode attributive complements:

(86)   Fᴜʟᴀɴɪ (Northern Atlantic, Atlantic, Niger-Congo, Cameroon) (Noye 1974: 167–70)
    a. *mi wadd-an-i*   *baaba-am*   *gawri*
       1SG bring-DAT.APPL-PST father-POSS.1SG millet
       'I brought my father some millet'
    b. *jang-an-am*   *derewol*
       read.IMPER-DAT.APPL-1SG paper.*ngol*CLASS.SG
       ngol
       DEM.*ngol*CLASS
       'read me this paper'

In (86a) the dative-applicative suffix *-an-* directs the action towards *baaba am* "father my", which is a noun-phrase, but *-an-* can also be applied to a pronoun, which is then cliticized to the verb as in (86b).

(87)   Cʟᴀssɪᴄᴀʟ Nᴀʜᴜᴀᴛʟ (Aztecan, Uto-Aztecan, Mexico) (Launey 1979:192)
    a. *ni-c-cui*   *in*   *tomin*
       1SG.S-3SG.O-take ART money
       'I take the money'

b. *ni-mitz-cuī-**lia***   *in*   *tomin*
   1SG.S-2SG.O-take-APPL ART money
   'I take the money for you'

In (87b) the object form of the second person singular personal pronoun *mitz* occupies the same place, after the subject pronoun, as the third person singular pronoun *c* in (87a), but *mitz* refers to a beneficiary, as indicated by the applicative suffix -*lia*. We notice that in this Classical Nahuatl sentence the pronominal beneficiary is itself encoded, along with the applicative affix, inside the verb-phrase. As was shown above by (85a') and (85b'), applicative-less languages like English may use word order to differentiate two treatments of the attributive, whose oblique form is visible on pronouns in English pairs like *give the book to him / give him the book*.

But applicatives do not only encode attributives. They can also encode instrumentive complements, as in the following examples:

(88)   FULFULDE (Nigerian and Cameroonese form of Fulani)
       bee   *leppol o   haɓɓ-**ir**-i*   *gite*
       INSTR strip   3SG bind.up-INSTR.APPL-PST eye.*nde*CLASS.PL
       puccu
       horse
       'he blindfolded the horse with a strip'

(89)   KINYARWANDA (Bantoid, Benue-Congo, Niger-Congo, Rwanda)
       (Kimenyi 1980: 152)
       a. *ù-mùgàbò   à-rà-àndìk-à   í-bárùwá   **n***
          PREPR-man 3SG-PRS-write-PROGR CL5-letter INSTR
          í-káràmú
          CL5-pencil
          'the man is writing a letter with a pencil'

       b. *ù-mùgàbò   à-rà-àndìk-**ìiš**-à   í-káràmú*
          PREPR-man 3SG-PRS-write-INSTR.APPL-PROGR CL5-pencil
          í-bárùwá
          CL5-letter
          'the man is writing a letter with the pencil'

Instrumental-applicative suffixes are illustrated by (88) for Fulfulde, where they have the forms -*(i)r(a)/-or(a)*, and by -*ìiš* in Kinyarwanda, as shown in (89b), to be compared with (89a) without applicative. There are also locative applicatives, as shown by (90):

(90) KINYARWANDA (Kimenyi 1980: 152)

    a. *ù-mwáalìmù*   *à-rà-àndìk-à*   *ìmìbárè kù*

       PREPR-CL1.teacher 3SG-PRS-write-PROGR maths   on

       kíbáahò

       blackboard

       'the teacher is writing maths on the blackboard'

    b. *ù-mwáalìmù*   *à-rà-àndìk-á-**hò***

       PREPR-CL1.teacher 3SG.-PRS-write-PROGR-LOC.APPL

       íkíbáahò   *ìmìbárè*

       blackboard   maths

       'the teacher is writing maths on the blackboard'

We notice that in (90b) the verb-phrase is followed by *íkíbáahò*, that is the full-fledged noun, with its pre-prefix *í-* in addition to its class prefix *kí-*, since in this position this noun is no more the governed term of an Adp as in (90a), but an object complement. We also notice that the noun referring to a place in (90b), as well as the one referring to an instrument in (89b), are contiguous with the VP marked by an applicative morpheme which selects these complements and can make them definite, hence "*the* pencil".

Certain languages have two, or even three, applicative morphemes, which can mark a variety of relations. For example, in Ainu the three applicative affixes, *e*, *o*, and *ko*, can mark not only attributive, instrumentive, or inessive relations, but also allative, ablative, and comitative, as shown, respectively, by (91a'), (91b'), and (91c'):

(91) AINU (Japan) (Shibatani 1990: 65–6)

    a. *a-kor   kotan ta sirepa-an*

       1SG-have village at arrive-1SG

       'I arrived at my village'

    a'. *a-kor   kotan a-e-sirepa*

       1SG-have village 1SG-LOC.APPL-arrive

       'I arrived at my village'

    b. *newa anpe orowa tumi-ne*

       that thing from war-become

       'from that thing, the war began'

    b'. *newa anpe o-tumi-ne*

       that thing ABL.APPL-war-become

       'from that thing, the war began'

c. *pone   tura   kuykuy*
   bone with bite
   'bite something together with a bone'

c′. *pone ko-kuykuy*
   bone COM.APPL-bite
   'bite something together with a bone'

In (91) we see that Ainu applicatives are located before the verb, and not after it as in Kinyarwanda. This might be related to the fact that Ainu is an SOV language.

It often happens that a language uses two applicatives in the same verb-phrase. In Tswana, using the applicative *ɛl/el/al/ed/ets*, one gets a transitive construction from an intransitive one as in (92a′), a two-object transitive construction from a one-object one as in (92b′) and (92b″), or a three-object construction from a bitransitive one as in (92c′). But Tswana can also use two contiguous applicatives, referring, for example, to a goal and an interested participant as in (92d′). Ainu also allows such a structure, as shown in (93), which contains two contiguous applicative morphemes, successively pertentive (cf. Section 5.3.1) and attributive:

(92)   Tswana (Bantoid, Benue-Congo, Niger-Congo, Botswana, South
       Africa) (Creissels 2002: 409–11)
       a. *lò-séá   ló-lél-à   thátà*
          CL11-baby CL11.S-cry-VE much
          'the baby is crying very much'

       a′. *lò-séá   ló-lél-ɛl-à   gò-áɲà*
          CL11-baby CL11.S-cry-APPL-VE INF-suckle
          'the baby is crying to be suckled'

       b. *kgósí í-átlhóts-é   mò-ńnà*
          king CL1.S-sentence-VE CL1-man
          'the king has sentenced the man'

       b′. *kgósí í-átlhòl-éts-í   mò-ńná   bó-gòdù*
          king CL1.S-sentence-APPL-VE CL1-man CL14-theft
          'the king has sentenced the man for theft'

       b″. *kgósí í-átlhòl-éts-í   mò-ńná   lò-só*
          king CL1.S-sentence-APPL-VE CL1-man CL11-death
          'the king has sentenced the man to death'

       c. *kì-f-íl-é   ngwánà-kɛ́   màdí*
          1SG.S-give-PFT-VE CL1.child-POSS.1SG CL6.money
          'I gave my son some money'

    c′. *kì-f-éts-é*   *ngwánà-ké*   *bàisíkìlí màdí*
        1SG.S-give-APPL.PFT-VE child-POSS.1SG bike   money
        'I gave my son some money to buy a bike'

    d. *kì-kwál-έl-á*   *màlɔ́mέ*   *lɔ̀-kwálɔ́*
        1SG.S-write-APPL-VE   CL1.uncle.POSS.1SG   CL11-letter
        'I am writing a letter to my uncle' or 'on behalf of my uncle'

    d′. *kì-kwál-έl-έl-à*   *m̀mέ*
        1SG.S-write-APPL-APPL-VE CL1.mother.POSS.1SG
        màlɔ́mέ   (or *màlɔ́mέ*
        CL1.uncle.POSS.1SG   (or CL1.uncle.POSS.1SG
        m̀mέ)   *lɔ̀-kwálɔ́*
        CL1.mother.POSS.1SG) CL11-letter
        'I am writing a letter to my mother on behalf of my uncle' or 'to my
        uncle on behalf of my mother'

(93)   AINU (Shibatani 1990: 6)
      asinuma ekasi   *matkaci*
      1SG   grandfather   girls

      a-e-ko-paskuma
      1SG-PERT.APPL-ATTR.APPL-tell.an.old.story
      'I told girls an old story about grandfather'

In some languages, applicatives have uses according to which they do not
encode various complements as objects, but are specifically associated with
spatial complements. Applicatives, in this case, make it possible to modify the
lexical sense of verbs referring to a move, given that locative markers which
appear in the same sentence as these verbs do not by themselves mark a
distinction between source, location, and goal. This is shown by comparing
(94a) and (94b):

(94)   TSWANA (Creissels 2002: 413)
    a. *ngwàná ɔ́-tsw-à*   *mó-járàténg*
       child   CL1.S-go.out-VE CHOR-yard
       'the child is going out of the yard'

    b. *ngwàná ɔ́-tsw-έl-à*   *mó-járàténg*
       child   CL1.S-go.out-APPL-VE CHOR-yard
       'the child is going out into the yard'

The Tswana spatial complements referring to the point out of which a move
takes place are identified as such, in (94a), by the intrinsic meaning of the verb

tsw(a) "to go out", since, as recalled above, *mó* (whose status will be studied in Section 2.4.2.4) does not by itself indicate a source. This is why if one wants to change the sense of the verb while keeping this same locative marker, one must use a device that is able to give verbs of movement a direction other than the one they intrinsically indicate. This device is the use of the applicative marker in (94b). More generally, it appears that the effect of applicative markers, in this type of language, is to divert attention from the verb to the semantic framework of the sentence as a whole. This is confirmed by examples (95) and (96):

(95)   KINYARWANDA (Bantoid, Benue-Congo, Niger-Congo, Rwanda) (Grégoire 1998: 295–6)

    a. *í-búyé*   *rí-gw-y-é*   *mù-n-zírá*
       CL5-stone   CL5.S-fall-LIG-PST   CHOR-CL9-way
       'the stone has fallen on the road'

    a'. *ù-mùgàbò*   *yá-gw-ìr-ì-é*   *mù-n-zírá*
       PREPR-man   CL.1.S-fall-APPL-LIG-PST   CHOR-CL9-way
       'the man has fallen while walking on the road'

    b. *kù-báng*   *ù-mùhètò*   *mù-gì-tí*
       CL15-carve   CL3-bow   CHOR-CL7-tree
       'to carve a bow in a branch'

    b'. *kù-báng-ír*   *ù-mùhètò*   *kù*   *gì-tí*
       CL15-carve-APPL   CL3-bow   beside(CL17)   CL7-tree
       'to carve a bow beside a tree'

(96)   HAYA (Bantoid, Benue-Congo, Niger-Congo, Tanzania) (Hyman *et al.* 1980: 579)

    a. *nkà-gw-à*   *ómú-n-jù*
       1SG.S-fall-PST   CHOR-CL9-house
       'I fell (while I was) in the house'

    a'. *nkà-gw-èl-à*   *ómú-n-jù*
       1SG.S-fall-APPL-PST   CHOR-CL9-house
       'I fell into the house (while I was outside)'

    b. *nkà-bón-à Kàtò*   *ómú-n-jù*
       1SG.S-see-PST Kato   CHOR-CL9-house
       'I saw Kato (while he was) in the house'

    b'. *nkà-bón-èl-à Kàtò*   *ómú n-jù*
       1SG.S-see-APPL-PST Kato   CHOR-CL9-house
       'I saw Kato (while I was) in the house'

We observe that while (95a), where the verb is intransitive, and (95b), where the verb is transitive, indicate the places where a stone fell and a bow was carved, (95a′) and (95b′) point to the exterior circumstances in which these two events happened. Thus, in (95a′) and (95b′) the use of the applicative results in untying the link between the locative complement and either the intransitive verb, or the object of the transitive verb. Similarly, while (96a) and (96b) indicate, respectively, the place in which the subject fell and the place in which (s)he saw Kato, (96a′) and (96b′), by untying the link between the locative complement and the event, mean that the subject was somewhere when (s)he fell, hence that he fell into the house from outside, and that the locative complement does not refer to the object but to the subject. It is therefore true that, as suggested by Hyman *et al.* (1980: 580), when the applicative is used, locative complements "are not part of the verb complement, but rather relate to the entire assertion (including the subject's relationship to the action)".

Moreover, in these sentences, given the absence of Adps, it is the applicative that makes it possible to know exactly what the locative complement refers to. And just because applicatives can direct the action towards a new point involving the subject of the verb, they can also mark a certain direction as a new information about the subject. This is what explains the difference between (97a) and (97b):

(97) TSWANA (Creissels 2002: 413)

    a. *ó*   *sú-l-è*   *kó-jùrɔ́pà*
        CL1.S die-PFT-VE CHOR-Europe
        'he died in Europe'

    b. *ó*   *sw-éts-ì*   *kó-jùrɔ́pà*
        CL1.S die-APPL.PFT-VE CHOR-Europe
        'he died in Europe'

The difference between (97a) and (97b), which seem to have the same meaning in their English translation, is that in (97b) the use of the applicative points to the fact that the death of the person referred to is known information, whereas the place where this has happened is new information. A more accurate translation of (97b) would therefore be "the place where he died is in Europe".

In all the languages cited above, applicative morphemes point to various adverbial complements. Since this is also what Adps do, certain authors consider applicative formation as a case of Adp incorporation. Shibatani,

specifically commenting on the form taken by this phenomenon in Ainu, suggests that the reason these authors prefer such a treatment is that in this language,

applicative formation, so to speak, absorbs postpositional particles, and though the applicative prefixes show no morphological resemblance to the postpositional particles, they nonetheless indicate the semantic relations of the stranded (i.e. particle-less) oblique nominals just like the postpositional particles. Because of this characteristic, Baker (1988) considers applicative formation as a case of P (pre- or postposition) incorporation.   (Shibatani 1990: 64–5)

The characteristics of Adps studied in the preceding sections, particularly those that relate to the governed terms and to position, make it rather difficult to consider applicatives as incorporated Adps. The semantic relationships of adverbial complements with the head, as they are expressed by applicatives, are admittedly the same as those expressed by Adps, but this semantic fact is only one aspect, albeit important, of the problem, and Adps are too tightly linked to their governed term to remain Adps when incorporated and thus separated from it (cf., however, Section 3.3.3.4). Applicative morphemes do not concretely put the complement under the dependency of the verbal predicate, as is done by Adps. And, as expected, given this situation, Adps and applicatives can coexist without difficulty in the same sentence, as shown by (88) above. Moreover, there is no synchronic resemblance between Adps and applicatives in languages where they can coexist in a sentence. This is shown, again, by (88), in which *bee* and *-ir-* have no phoneme in common, even if one is the instrumentive Pr and the other the instrumentive applicative. Applicatives are also distinct from place, patient, instrument and other affixes, like Salishan lexical suffixes (cf. Hagège 1981: 58–66).

2.4.2 *Verb-phrase-external word-types that might be confused with Adps*

Among word-types that occur outside verb-phrases and might be confused with Adps, some have the very form of units otherwise used as Adps but are inseparable parts of complex words (2.4.2.1), while others, which I propose to call *depredicants*, are defined by the fact that although they are associated, just like Adps, with a noun-phrase, they do not indicate its function, nor relate it to a syntactic centre, but make it able to function as subject or object (2.4.2.2); other verb-phrase-external word-types which might be confused with Adps are, first, those which do not govern a noun-phrase but modify, often idiomatically in phrasal verbs, the meaning of the verb (2.4.2.3), second, those that I propose to call *chorophorics* and that stress the spatial meaning

of a noun-phrase (2.4.2.4), third, those which mark it as a topic (2.4.2.5), and finally coordination markers (2.4.2.6).

2.4.2.1 *Adverb-internal Adp-shaped elements*   Let us consider complex words such as English *hereby, herewith, thereby, thereof, whereat, whereby, wherefrom, wherein, whereof, whereon, wherethrough, whereunder, whereupon, wherewith,* etc., German *daran* "at this", *darüber* "on this", *damit* "with this" *davon,* "of this" *dazu* "to this", Dutch *daarna* "then, later", *daarom* "for that", etc. The presence of an element which has the form of an Adp inside these words does not mean that there is any reason to treat this element as an Adp. In fact, the adverbial (affirmative or interrogative) element which occurs in first position in these complex words has the same meaning as a pronoun, as is indicated by the translations. The final Adp-shaped element, if treated as an Adp, would be a Po, which is fairly rare in Germanic languages. Synchronically, it is not possible to treat the initial adverbial element as a special form of a personal pronoun, or the final Adp-shaped element as a governing morpheme able to be ungoverning in other contexts (cf. 2.3.1.1–2). The result of this association is simply an adverb, as explicitly recognized in the German terminological tradition, which calls such associations as *hierfür* "for this purpose" or *womit* "whereby" *Pronominaladverbien* "pronominal adverbials", whatever their various forms in the German dialect-geographical area (cf. Lower German *darachter* "behind (it)", or intriguing patterns of splitting and doubling, like *da weiss ich nichts davon* "I know nothing of this": cf. Fleischer 2002, who speaks of "Preposition Stranding", without compelling arguments).

The result of the association can also be a noun, like the English plural *whereabouts,* for example in

(98)   *no one knows his **whereabouts***

It must also be stressed that an Adp can no longer be treated as such when it constitutes, along with its governed term, a complex frozen preverb, like German *aus-einander, über-hand, zu-grunde* (all written here, for clarity's sake and against common usage, with a hyphen between the two elements) in, for example, *auseinanderbringen* "to disjoint", *überhandnehmen* "to increase", *zugrunde liegen* (in this word common usage accepts the complex preverb and the verb to be written separately) "to underlie".

A last case to be recalled is that of adverb-internal elements which do not have the form of full-fledged Adps but of parts of Adps that, in the past, were Adps. This case is illustrated by such words as *westward, westwards, eastward, eastwards,* and the like. These words, used either as nouns (or adjectives)

when they do not end in -*s* or as adverbs when they do, cannot be analysed today into a noun of direction and an Adp.

2.4.2.2 *On* depredicants *as a special, still undescribed, word-class, distinct from Adps*   Consider examples (99)–(101):

(99)   TAHITIAN (Oeanic, Eastern Malayo-Polynesian, Austronesian, French Polynesia) (Vernaudon and Rigo 2004: 466, 470)
  a. *ua   reva   ona/Pito*
     PFT leave 3SG/Pito
     's/he/Pito has left'

  b. *ua   mutu te   tarià o   Pito*
     PFT cut   DEPR ear   GEN Pito
     'Pito's ear is cut off'

(100)   TAGALOG (Meso-Philippine, Western Malayo-Polynesian, Austronesian, Philippines) (Schachter and Otanes 1972: ch. 2)
  a. *dalaga siya*
     girl   3SG
     'it's a girl'

  b. *maganda **ang**   dalaga*
     beautiful DEPR girl
     'the girl is beautiful'

(101)   PALAUAN (Western Malayo-Polynesian, Austronesian, Palau Islandss) (Hagège 1986: 106)
     a   ngalǝk a   r<m>urt
     DEPR child   DEPR run.IPFT<VMK>
     'the child is running'

Tahitian *tarià* "ear" in (99b) and Tagalog *dalaga* "girl" in (100b) cannot function as subject or object in a sentence without being preceded, respectively, by *te* and *ang*. In Palauan, when the subject is neither a personal nor a deictic pronoun, both the verb and the subject must be preceded by *a*, as shown in (101). Example (99a) shows that in Tahitian, personal pronouns and proper nouns do not require the presence of *te*; (100a) shows that *dalaga*, when not preceded by *ang*, is predicative by itself. As for (101), an accurate literal translation would be "the one who is a child is the one who is running".

  Thus, an interesting, and rather special, characteristic is observed in certain languages, among which are the three Austronesian languages illustrated by (99)–(101): some of their lexemes, or most of them, are inherently predicative,

and cannot have access to an utterance as nouns if they are not associated with a special morpheme, which deletes their inherent predicativity, hence the label *depredicant* which I propose. Are we to call this depredicant morpheme an Adp? Admittedly, it occurs in contiguity with a noun-phrase, just like Adps, and its role might seem related to the function-marking role of Adps. But depredicants say nothing of the subject or object function of the unit with which they are associated, nor do they relate it to a syntactic centre. Rather they topicalize it, and may be called topic markers. Thus, depredicants, although they have some points in common with Adps, should be distinguished from them.

2.4.2.3 *Modifiers of the meaning of the verb*   It is important to stress the difference between Adps and displaceable morphemes, often called "particles", which, in languages like English, German, Dutch, Scandinavian, Hungarian, and others, are semantically associated with verbs to form a verb-particle construction whose English illustrations, typical of that language, are traditionally called phrasal verbs. They could be considered as verb-phrase-internal morphemes, but the fact that they are displaceable suggests that we treat them here. Consider (102):

(102)   (Libert 2006: 11)
    a. *he sped **up** the pole / *he sped the pole up* ("climbed quickly")
    b. *he sped **up** the process / he sped the process **up*** ("hurried")
    c. *I looked **up** the word / I looked the word **up***

The meaning of the verb+particle expression *to speed up* in (102b) is different from that of the verb *to speed* which is followed in (102a) by a spatial complement marked by *up*. That *up* in (102a) is not a particle semantically associated with the verb is shown by the impossibility of placing it at the end of the sentence, unlike *up* in (102b), which has an idiomatic meaning and constitutes an element of a transitive phrasal verb, just like *up* in (102c). This difference between these verbal particles and Adps is further proved by two other facts. First, the sequence particle + noun-phrase, at least in English, may not occur in sentence-initial position, while Adp-phrases often may, as shown by (103):

(103)   (Libert 2006: 12–13)
    a. **in the line, the man reeled as if drunk*
    b. ***in** the street, the man reeled as if drunk*

In (103a) we have a phrasal verb *to reel in (a line)*, while (103b) contains a prepositional phrase *in the street*, which functions as an adverbial complement

of the verb *to reel*. The second fact is that in English, as shown by (104), verb-particle constructions can be passivized while objects of Prs cannot be made subjects of passive sentences:

(104)   (O'Dowd 1998: 15)
      a. *The light was turned **off***
      b. **The road was turned off*

The same situation obtains for other morphemes, like *through, over,* and *round,* which, when used without an idiomatic meaning, are what may be called *governing morphemes.* To that extent, their behaviour, which is that of Adps, is quite distinct from that of constituent elements of phrasal verbs, like *up* in example (102c) above, or *through* in (105):

(105)   *the rapier ran the man **through***

What should be stressed here is that these constituent elements, whether they stand before or after the noun-phrase, can either keep roughly the same meaning, as in (102c), or have a different meaning when permuted, granting that the permuted version of (105),

(105')   *the rapier ran **through** the man,*

is held to be good English, which is not certain (cf. Libert 2006: 6–7). In other words, the constituent morphemes of phrasal verbs like that in (105) are ungoverning elements, and this is one of the factors of the idiomaticity of these English constructions, whereas Adps are fundamentally governing morphemes. However, other morphemes that are part of phrasal verbs are also governing morphemes, like, for example, *for* and *after* in (106) and (107):

(106)   *he was looking **for** his book*

(107)   *many people look **after** him*

On the other hand, certain English verb phrases in which the final morpheme is either governing or ungoverning often occupy an intermediate position between the status of phrasal verb and that of verb + preposition. Palmer writes about one of them:

RUN OVER [...] seems to be in the process of becoming a phrasal verb, but does not yet fully contrast with the homonymous prepositional verb.   (Palmer 1974: 219)

All these facts show that although the difference between Adps and particles belonging to phrasal verbs is mostly rather clear, there are some border

phenomena. An interesting criterion, however, exists, which applies to the examples given here, and more generally to Adps as a word-class, and often makes it possible to decide that a morpheme is an Adp rather than a modifier inside a phrasal verb: genuine Adps are rarely imposed elements required by the construction of the verb; in many places in the present book it appears that more than one Adp may be used in the same context, and that conversely, one and the same Adp may be found in rather different contexts. Among many examples of this characteristic, cf. Section 4.1.1.3.

2.4.2.4 *On chorophorics, another special, still barely described, word-class, to be distinguished from Adps*

2.4.2.4.a **The distinction between place as an entity and place as an inherent spatial relation**   This difference may be marked by an opposition between the use of lexical means combined with Adps and the use of Adps on their own. Consider the list in (108):

(108)   POLYSEMIC PLACE NOUNS IN LONGGU (Oceanic, Eastern Malayo-Polynesian, Austronesian, Solomon Islands) (Hill 1996: 312–13)

nouns	place as an entity	place as an inherent spatial relation
luma	'house'	'home'
komu	'village'	'(my/our) village'
malaba	'garden'	'the garden I/we work in'
masu'u	'bush'	'the bush on the outskirts of our village'
mala'u'u	'hill'	'the hill behind our village'
wai	'river'	'the river in our village'
asi	'sea'	'the sea/beach at our village, seawards'.

We see that the Longgu words in (108) have at least two meanings. The choice depends on one, very precise, condition: either the word is, or it is not, preceded by *tana*, a nominal complex that consists of a bound morpheme *ta-* and a possessive suffix *-na*. When a noun belonging to the list in (108) is used in its inherently locative meaning, it directly follows one of the Prs *i* "at", *vu* "to, towards" or *mi* "until". But when the noun is taken as a non-inherently locative entity, *tana* must be inserted between the Pr and the noun. Thus Longgu uses lexical means to distinguish between the two acceptations, but the adequate meaning of the nouns is selected by *tana*. Compare, for example, (109a) and (109b):

(109)   LONGGU (Hill 1996: 310)

    a. *mwane e   la vu komu*
       man   3SG go to village
      'the man went to (his) village'

b. *m-ara   la   vu   **tana**   tabalu   komu-gi-na*
   and-3PL   go   to   *tana*   some   village-PL-DEICT
   'and they went to some (other) villages'

In (109a) the motion is towards a location that is inherently locative. On the other hand, it is implied in (109b) that reference is made to any village which is not the one in the natural environment where the agents live. This semantic difference in not unrelated to cultural facts. Thus, there is a clear distinction between (110a) and (110b):

(110)   LONGGU (Hill 1996: 320)
        a. *na   ho   la   **vu**   asi*
           1SG IRR   go   to   sea
           'I am going seawards'

        b. *na ho la   **vu tana** asi*
           'I   am going to the   sea'

In (110a), given the absence of *tana*, *asi* is conversationally considered as a particular place, which is defined as intimately linked to the speaker. Longgu is spoken on a small island. Thus, in (110a), there is a conversational implicature: the sea in question, being inherently locative and not just any sea, belongs to the speaker's environment. Consequently, (110a) implies that the speaker is going to the sea as a place very close to where s/he lives, and therefore that s/he does not live in an inland village but in a village built on the seashore. On the contrary, (110b) can only be said by inhabitants of the inland region: they must specify, by the use of *tana*, which selects the non-inherently locational meaning of *asi*, that they are going towards the sea and will be there as in a place remote from their home. Conversely, if someone says

(111)   LONGGU (Hill 1996: 320)
        na   ho   la   vu longa
        1SG   IRR   go   to inland
        'I am going inland',

it is implied that, since *longa* is taken as inherently locative due to the absence of *tana*, then the speaker is going to a special place by itself, belonging to his/her environment, for example the garden (which is located inland of each village).

   Along with the Longgu data, one could mention those of other Austronesian languages which also stress the inherent locative meaning of names of cities. In Malagasy, for instance, the name of the capital of Madagascar, *antanan-arivo* (in-city-thousand, i.e. literally "in city (of) thousand (persons)"), begins with a bound usage of the inessive Pr *an*, whose function is to indicate

from the outset that we have to do with a place in itself. Certain place names are also treated in this way, as can be seen in (112):

(112)   MALAGASY (Western Malayo-Polynesian, Austronesian, Madagascar)
(Fugier 1999: 80)

n-iafenan	*ny*	*mponina*	*rehetra*	*tao*	*an*	*ala*
PST-hide.CIRC.VC	ART	inhabitant	all	there	in	forest

'the place where all the inhabitants hid [was] (there in) the forest'

According to Malagasy syntax, the circumstantial voice of the verb with which this sentence begins calls for a final subject (the word-order is V(O)S) referring to a place. This subject is marked as such by a special locative morphology, that is both the adverb *tao* and the Pr *an* before *ala* "forest". Thus the forest here is not the concrete thing which is defined by its trees, but the place about which something is said. Other languages, especially in Australia, also distinguish two notions of place by lexical means associated with special morphemes. Mparntwe Arrernte is such a language (Hill 1996: 311).

But there are also languages in which special morphemes exist to mark place as an inherent spatial relation. Consider (113a–b):

(113)   MANDARIN CHINESE (Hagège 1975: 232)

a. *shān   shang hěn měi*
   mountain on   very beautiful
   '(on) the mountain is beautiful'

b. *zhèi zuò shān   hěn měi*
   this CL mountain very beautiful
   'this mountain is (very) beautiful'

It appears here that *shān shang* may be substituted by *zhèi zuò shān*, which functions as the subject in (113b). This suggests that *shān shang* could be treated as a subject in (113a). If this is correct, then *shang* (which bears a neutral (unmarked) tone, being unstrssed) has a interesting property: although it marks *shān* as being located in space, it does not make it an adverbial complement as is done, in many other languages, by the words meaning "on" or "in", that is by Adps. It must be stressed that there is a semantic difference between (113a) and (113b): (113b) refers to an object, a mountain about which one is talking, and whose beauty is stressed, whereas the speaker who utters sentence (113a) is stressing the beauty of a certain place, primarily defined as such. This means that the mountain, in (113a), is taken as inherently locative. Moreover, it is implied, in most cases, that the speaker is

located in that place when referring to it in a sentence which has the structure of (113a). Should *shang*, then, be treated as an Adp? Before answering, let us examine other languages.

In fact, the semantic characteristics of *shang* in (113b) are far from being observed in Mandarin Chinese only. For example, in Russian (114a) and (114b) are both possible:

(114)   RUSSIAN (Hagège 2001: 46)

    a. *v   les-u*   *šumit*
       in forest-INESS rustle.3SG
       '(in) the forest is rustling'

    b. *les*   *šumit*
       forest.NOM rustle.3SG
       (see below)

The semantic difference between (114a) and (114b) is comparable to the one between (113a) and (113b): in (114a), unlike (114b), it is suggested that the speaker is in the forest at the moment when s/he says that it is rustling. The reason is that just like the mountain in (113a), the forest in (114a) is taken as inherently locative, and therefore as defined, first of all, by its spatial relation with the speaker. In addition, there is a syntactic difference between (114a) and (114b): whereas in Chinese, which has no morphological cases, it is quite possible to consider *shān* in (113a) as a subject and *shang*, which may be omitted in certain contexts, as something other than a relator, in Russian, *v* requires the inessive (marked by -*u* in *les-u*) and is a Pr (in fact a prepositional clitic). Thus, while the nominative *les* functions as subject in (114b), *v les-u* in (114a) cannot be treated as a subject: the obligatory subject here is, in strictly morpho-syntactic terms, the 3SG suffix -*it* which is characteristic of Indo-European languages. In English, likewise, the -*s* of *rains* and *pours* in *it never rains but it pours* does not refer to any existing entity in the situational context, but is structurally required, since English, like French and Russian, is typologically a language with subjectal requirement (Hagège 1978*a*: 14).

Despite this syntactic difference between Chinese and Russian, what is important here is that (i) in both languages one can find sentences in which there is a noun-phrase containing a place name and accompanied by a special locative morpheme, and (ii) the noun-phrase associated with this morpheme refers to the place in question as a portion of space (mostly occupied by the speaker) rather than to this place as an entity in itself. One may, therefore, wonder whether there is a morphological category whose members, unlike Russian *v*, can be shown not to be Adps, and, like both Russian *v* and Chinese

shang, serve to mark a noun as referring to an entity defined by its position in space rather than to an entity defined internally by its concrete features. To what extent can the existence of such a category be confirmed by the data found in other languages?

North-western Bantu languages are well-known for the way they mark space relationships. Thus in the Olutsootso dialect of Luyia we find such sentences as (115a–c):

(115)   OLUTSOOTSO DIALECT OF LUYIA (Bantoid, Benue-Congo, Niger-Congo, Kenya) (Dalgisch and Scheintuch 1977: 220, 224)

    a. *jón   à-tsí-à   xù-mú-sá:là*
      John 3SG-go-PST *xù*-CL3-tree
      'John climbed up the tree'

    b. *xù-mú-sá:là xù-tsí-bw-à-xwò   né:ndè jón*
      xù-CL-tree *xù*-go-PASS-PST-there by   John
      '(on) the tree was climbed up by John'

    c. *jón à-tsí-à   imbélí   yà ò-mú-sá:là*
      John 3SG-go-PST in.front of PREPR-CL3-tree
      'John went in front of the tree'

We can see that in (115b), which is the passive version of (115a), *xù-mú-sá:là*, the topic about which something is being said also functions as a subject: *xù … xù* is a type of morpheme agreement which stresses the link between the noun-phrase and the verb-phrase. We are not dealing with class agreement here, since we already have a classifier: *mú*. Therefore, the tree is both characterized as a certain class of things and as a place. This locative acceptation is further stressed by the use of the adverbial morpheme *xwò*. Thus, *xù* does not behave here as an Adp. This is further shown by the behaviour of Olutsootso's spatial Adps. These are Compound Adps (cf. Section 3.3.2) having a nominal origin, such as *inyúmá yà* "behind", or *imbélí yà*, which has the same structure and the same meaning as its English equivalent, *in front of*, also a Compound Adp with a nominal origin, joined to its nominal complement by a connective. This is what can be seen in (115c). It is important to note that when the noun is governed by a spatial Adp, the pre-prefix (a morpheme characteristic of a number of Bantu languages) cannot co-exist with the locative marker: in (115c), where the preprefix belongs, like the class marker, to class 3 (containing botanic species among others), it is impossible to express "in front of the tree" by *imbélí yá xù-ò-mú-sáalà.

A further revealing fact is that while (115a) can be passivized, yielding (115b), it is not possible to passivize (115c), yielding

(115c′)   *ìmbélí   yà   ò-mú-sá:là   mú-tsí-bw-à-xwò   né:ndè   jón*
           in.front of PREPR-CL3-tree *mú*-go-PASS-PST-there by   John
           **in front of the tree was gone by John*

The only possibility is to start from a non-passive version, in which the spatial expression is treated as the direct object of a verb, as in (115a), with an applicative spatial morpheme in languages which use such morphemes. Thus becoming a direct object, the spatial expression can easily be transformed into the subject of a passive verb, as in (115b). But (115c) cannot be passivized, either in Olutsootso or in English.

The fact that (115a), unlike (115c), can be passivized, with *xú-mù-sá:là* being the subject as in (115b), shows that *xù* functions in a way very similar to that of Chinese *shang* in (113a): they both serve to mark a noun as referring to a position in space rather than to an object characterized by its internal constitution. They convert this object into a place by assigning it to a certain region in space. This regional identity is itself dependent on the configuration of the thing which is thus converted into a place. As a logical consequence, the topological, functional, and interactional properties of this thing are not irrelevant in defining the region. This explains why we can say, in Nyanja, either (116a) or (116b):

(116)   NYANJA (Bantoid, Benue-Congo, Niger-Congo, Nyasaland and Northern
         Zimbabwe) (Grégoire 1998: 297)
         a. *á-bú-tàrà   bú-sànángé*
            PREPR-CL14-yard CL14-shine
            'the yard is shining'

         b. *kú-bú-tàrà   kú-sànángé*
            kú-CL14-yard   *kú*-shine
            'the yard is shining'

(116a) refers to the yard as an object which is shining, whereas (116b), through the use of *kú*, which we can now call a locative marker, selects the locative meaning of the notion of yard: it converts a yard-as-a-thing into a yard-as-a-place-in-space, and it is this place which is referred to as shining. There is an additional implication: the speaker, when uttering (116b), is generally located in the place referred to, which just belongs to his/her defining environment. Similarly, if we say

(117)   NYANJA (Price 1953: 28–9)
         mú-ń-tàngà   mú-nùnkà
         LOC.MK-CL9-basket LOC.MK-stink)
         'the (inside of the) basket stinks',

we do not mean that the basket as such stinks, but that it is one of its parts, the inside, which stinks. In other words, through the use of the locative marker, we select a locational property of the basket—the fact that it possesses an interior part—and (117) refers to a (momentary) characteristic of this interior part. According to Price, who cites this example,

this is much more accurate than the ordinary English "the basket stinks", for usually there is nothing wrong with the basket itself; the trouble is due to something foreign inside, though we may not be able to say exactly what. There we have an instance of how Nyanja has an expression for an idea which we normally do not express. In the same way, *pa-phiri pa-tenta* "on the hill is hot, it is hot on the hill" expresses directly a notion which we can indicate only introducing the unmeaning term "it".

(Price 1953: 28–9)

The special semantic properties of locative markers are well illustrated in Bantu languages, as is shown by the examples cited above. The forms locative markers take in these languages are, in Swahili for example (recalling that the consonants, and even the vowels, exhibit much variation from one Bantu language to another), *pa-* for the external surface of objects, *ku-* for the place occupied by it (other forms being *kù* in Kinyarwanda, *xù* in Luyia, *kú* in Nyanja, or *kó* in Tswana), and *mu-* for the internal parts of an object (other forms being *mó, mù, ómú*, or *mú*). These morphemes are generally considered by Bantuists as representing nominal classes 16 (*pa-*), 17 (*ku-*), and 18 (*mu-*), but they are recognized, often under the label "locative classes", as distinct from nominal classes 1–15 (cf. Grégoire 1998: 286). I will propose another treatment below, with the purpose of stressing their particular syntactic behaviour, distinct from that of Adps.

2.4.2.4.b **The polysemic nature of the notion of place.** *Lococentric* **languages and the category of** *chorophorics*. It follows from the above that we may consider Chinese *shang*, Olutsootso *xù*, Nyanja *kú* and *mú*, and all morphemes having the same behaviour crosslinguistically,[4] rather than as

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[4] A number of other Bantu languages, such as Zulu, Tswana, and Sotho, also possess locative markers, but with a particular morphological structure. In Zulu, for instance, locative markers are formed by substituting *e-* or *o-* for the initial vowel of the noun (depending on whether the latter is front or back) and by suffixing *-(w)ini* or *-(w)eni*. The special status of Zulu locative markers is confirmed by two interesting facts. On the one hand, a negative confirmation is that it is not possible to use the locative morphology with nouns denoting humans. From *umuntu* "person" we do not get **omuntweni*. The reason is not hard to find: humans do not define a region in space, since in order to do so, they should not be mobile. On the other hand, there is a set of nouns which take a defective locative morphology, that is they are marked only by initial *e-/o-*, and thus lack the *-(w)ini/-(w)eni* suffix. We have here an idiosyncratic property of specific lexical items: they denote entities which are already locative in character (Taylor 1996: 292). Languages other

special types of Adps, as members of a grammatical class of specific locative markers associated with a static entity taken as a place. The notion of place is far from monosemic. When it is not treated as a mere entity but is considered from the point of view of its relationship with space, the word referring to this place is marked by these locative morphemes as inherently locative. Locative markers are not a universal category, but they are an interesting feature of the languages that possess them. I propose to call such languages *lococentric*. And instead of "locative marker", I propose to speak of *chorophorics*, from Greek *choros* "place" and *-phoric*, which means, as in *logophoric* (coined by Hagège 1974), "which refers to". It should be added that chorophorics may only be posited as a contrastive category, that is in languages which mark a place either as a static[5] entity or as an inherent spatial relation. This does not apply to languages where there is no such contrast, even when they have a rich array of spatial markers, like the languages belonging to the Daghestanian, Eskimo-Aleut, or Athapaskan stocks.

Hagège (1975) appears to be the first work which explicitly stresses the difference between two conceptions of a place, as an entity or as an inherent spatial relation. This work stresses a number of properties of Chinese chorophorics like *shang* in example (113a), and shows, based on many other examples, that these morphemes are neither nominal determiners, nor Adps. Hill (1996) mentions an undated manuscript by D. Wilkins, in which we find the following passage:

A fundamental error surrounding the concept of place within semantic theory has been the failure of semanticists to recognize that the English word "place [...] covers two semantic notions [...] Places in the first sense are a subtype of entity and exist, like other entities, regardless of [...] predications. [...] Places in the second sense are generated into existence whenever [...] spatial predications (as represented by Adps, spatial cases, or other morphological forms) apply.   (Hill 1996: 311)

After Hagège (1975), other authors also stressed the polysemic nature of the notion of place. Lyons, for instance, noted the conceptual distinction to be made between things and places. According to Lyons (1977: 442), prototypical things, which he calls "first order entities", comprise "more or less discrete

than Bantu also exhibit such a characteristic. Navaho, to mention just one example, also has clitics able to ditinguish between nouns of places depending on whether they are taken as entities or as spatial relations (cf. Kaufman 1974).

[5] There is a link between static and passive. This is shown by Chinese, in which many sentences containing chorophorics have a passive meaning (cf. examples in Hagège 1975: 229–37), or by Marquesan, in which the patient-marker is homophonous with a chorophoric morpheme (cf. Dordillon 1960: 56).

physical objects", that is all the objects in nature, including human beings and animals. Unlike things, places are not entities but regions in space where things are located. The ambiguity results from the fact that in many languages, the name of the thing serves to identify the place where this thing is located. Lyons, commenting on the contrast between (118a) and (118b):

(118) a. *London is huge*
       b. *London is cold,*

points out (1977: 475) that (118a) refers to London as a thing, of which this sentence predicates a property, whereas (118b) does not refer to London itself, but to the place where London is located, and it is that place which is said to be cold. The ambiguity which we thus observe in most Indo-European languages does not exist in languages like Mandarin Chinese, Luyia, or Nyanja. These languages possess morphosyntactic means, distinct from Adps, which make it possible to distinguish two kinds of expressions: those that denote things and those that denote places.

2.4.2.5 *Topicalizers vs. Adps*   The characteristic behaviour of topicalizers as opposed to that of Adps appears clearly in sentences where they occur together, and thus may lead one to think, at first sight, that there are two Adp-phrases. Many SVO and SOV languages are characterized by the possibility of such sentences, in which two nouns occur in succession, each one associated with a distinct morpheme. Such sentences are known to be frequent in Japanese and Korean, respectively illustrated in (119) and (120):

(119) JAPANESE (Hagège 1978*a*: 24)
       a. *sakana wa tai   ga oishii*
          fish   *wa* chrysophrys *ga* delicious
          'as for fish, chrysophrys is delicious'

       b. *boku   ni   wa iwa-naka-tta*
          1SG.FAM DAT *wa* say-NEG-PST
          'to me at least, (he) didn't say (it)'

(120) KOREAN (North Korea, South Korea) (Li 1985: 261, 331)
       a. *khokiri   nən kho   ga khə-da*
          elephant *nən* trunk *ga* big-ASS
          'the elephant has a long trunk'

       b. *na   ege   nən pulmyongye nən chukəm kua   to   kat-ta*
          1SG DAT *nən* disgrace   *nən* death   COM too similar-ASS
          'for me, disgrace is similar to death'

We find here two nouns both associated with what appears to be a Po, *wa* and *ga* in Japanese, *nən* and *ga* in Korean, as seen in (119a) and (120a) respectively. Examples (119a) and (120a) seem to be strange types of sentences, that is two-subject sentences. In fact, the meaning of the first elements in both of these sentences is, as suggested by the English translation of (119a) and 119b), that of a topic, that is to say of someone or something about which the rest of sentence makes a comment. Furthermore, it is possible to combine the *wa* in (119a) and the *nən* in (120a) with an Adp-phrase, yielding (119b) and (120b) respectively. Given that a governed term cannot, as seen in Section 2.2.2, be governed by more than one Adp (unless Adps are coordinated), the two morphemes *ni* and *wa* in (119b), and *ege* and *nən* in (120b) do not belong to the same grammatical category. This syntactic argument and the semantic argument just given above result in showing that *wa* and *nən* are not Adps, but topic markers.

In terms of the Three Viewpoints Theory (Hagège 1982: ch. 2), Japanese *wa* and Korean *nən* cannot be interpreted from the morphosyntactic, but from the information-hierarchical viewpoint, and the reverse is true of Japanese *ga* and Korean *ga*. The same applies to other topic markers, like the *ko* of Hayu (cf. Michailovsky 1988: 196–7), or the *-qa* (plain topicalizer) and the *-ri* (associative topicalizer) of Quechua (cf. Itier 1997: 100–1). The topic marker and the comment, or focus, marker often occur in the same sentence, stressing the correlation between what is posited and what is said of it. This is a characteristic of many assertions in such languages as Malagasy, with topicalizer *dia* and focalizer *no* (cf. Dez 1980, §§ 12.7.2 and 15.6.3), or Aymara, with topicalizer *χa* and focalizer *wa* (cf. Porterie-Gutierrez 1980: 307–21). Not all languages possess specialized topicalizers, but all languages use intonation as a means to distinguish known from new information, and special morphemes, when existing, come as additional means of specification. Topicalization may also be indicated indirectly, as in Somali, where *waxaa* is used in sentences in which the complement represents known information and *baa/ayaa* when it is the predicate which represents known information (cf. El-Solami-Mewis 1987: 81–94).

Neither topicalizers nor focalizers govern any specific noun-phrase and, furthermore, they can introduce as a topic, or stress as a comment, any portion of the sentence. Thus they should not be confused with Adps, whose function is quite different. Morphologically, however, it often happens that topicalizers have the same form as Adps. This means that many languages use certain Adps as topic markers. Breton *ewid* is commonly so used, but it is also a temporal Pr with various meanings, and it is also found in idiomatic expressions. English uses certain pertentive Adps (cf. Sections 5.3.1 and 5.3.3.4.a)

as topic markers: these are, for example, *with respect to, as for, re* (familiar in this use, but not in its juridical and commercial uses), etc. However, there is a difference between

(121) **with respect to John, there is no problem**

and

(122) *Mary wondered what to do **with respect to** John (in this situation).*

with respect to is used as a topicalizer in (121) and as a pertentive Pr in (122), as shown by the fact that in most cases, *with respect to John* has a rising intonational contour and is followed by a pause (of course, not always a long one) in (121), whereas in (122) it is not separated from the beginning of the sentence by a pause, and has either a mid-level intonation if it is followed by *in this situation* or a falling intonational contour if it is at the end of the sentence. Among the many other languages which also use the same morpheme or expression, depending on the context, either as an Adp, or as a topicalizer, I will mention Mandarin Chinese, where both *guānyú* and *zhìyú* mean "as for, with respect to".

2.4.2.6 *Adps and conjunctions of coordination. The problem of correlative morphemes with Adp-phrases*   A number of languages (19 per cent of 754 languages: cf. Hagège 1982: 12, fn. 7) have the same word for "and" and "(comitative) with". It is possible to resort to several phonological, morphological, syntatic, and semantic criteria to show that what is hidden behind this homophony is the existence of two different word-classes.

Pause is sometimes mentioned as a distinctive phenomenon: in languages without a marked plural on verbs and where Adp-phrases precede the predicate, like Mandarin Chinese, the Adp-phrase is held to be separated from the predicate by a shorter stretch of time than in the case of two coordinated noun-phrases linked by a morpheme having the same form as the Adp; furthermore, in languages where Adp-phrases come before the predicate, it seems that there is a longer pause between the subject and the Adp-phrase than if there were, instead of them, two coordinated members as subjects of the sentence. Another phonological criterion is stress. It is true that such an inquiry with informants as has been done for Mandarin Chinese shows that when the morpheme in discussion is a coordinator, the association noun + morpheme + noun tends to be heard as a unit as far as stress is concerned, while there is, more often than not, a stress unit [morpheme + noun-phrase + predicate] when this morpheme is an Adp. But none of these phonological criteria is really decisive: both the length of a pause and the

clear usage of distinctive stress, largely depending on individual choices, are fairly variable.

Morphological criteria are trustier: there is no possible confusion in languages having a morphological plural on verbs, nor in those which place Adp-phrases after the predicate, since number agreement is required in such languages, which, in addition, do not usually split coordination noun-phrases into two separated parts. As for syntactic criteria, calling "*with*-languages", as is done in Stassen (2000, 2005), those which distinguish a morpheme "and" and a morpheme "with" implies that in *with*-languages the conjuncts have different syntactic status, since "with" governs a term, while "and" does not. In other words, we can safely posit a "with" Adp when the conjuncts are heterofunctional, and an "and" coordinator when the conjuncts are homo-functional. But this criterion is not explicitly mentioned (except for the notion of "equality in rank", adduced with respect to "doubling of the comitative marker when used as a conjunction" in Japanese) in Stassen (2005), unlike the word order difference which, in certain languages, triggers the passage from a "with" to an "and".

Finally, one can mention interesting semantic arguments, which are, in fact, linked with syntactic considerations. In Mandarin Chinese, for instance, there are morphemes like *gēn*, *hé*, *tóng*, which all mean, depending on the context, either "with" or "and". Consider (123):

(123)   MANDARIN CHINESE (Hagège 1975: 319)
    a. *Riben **hé**   dàduōshù guójiā **de** duìlì*
       Japan towards most   country *de* antagonism
       'the antagonism which raises Japan against most countries'

    b. *Jin Gui **gēn** Yu Feng zŏu le*
       Jin Gui with Yu Feng leave PST
       'Jin Gui left with Yu Feng'

In (123a) the permutation between *Riben* and *dàduōshù*, which would be possible if they constituted two coordinated noun-phrases, is rejected by informants; furthermore, if *hé* were a coordinator in (123a), the meaning would be "the antagonism which is common to Japan and most countries", that is something strange, since we do not know against whom or what there is antagonism. In (123b) the predicate refers to an event which does not involve two or more same-level participants, but one participant confronted with a specific circumstance. This criterion is further strengthened by the possibility of inserting, between the two supposedly coordinated elements, a morpheme like *biàn* "then", whose meaning results in linking the sentence to

the preceding context and separating *gēn Yu Feng*, as a verb-related comitative complement, from *Jin Gui*, which thus appears as the subject:

(123b′)   *Jin Gui **biàn** gēn Yu Feng zǒu le*

According to informants, this insertion of *biàn* between the two proper nouns would be impossible, or very strange, if *gēn* meant "and" here, that is, if it were a conjunction of coordination. Now, if *biàn* is inserted between *gēn Yu Feng* and *zǒu le*, then *biàn* cannot be interpreted as a morpheme linking the sentence to the preceding context, because the position of such a morpheme in Chinese is as in (123b′), not as (123b″), which would result from this word-order:

(123b″)   ?*Jin Gui gēn Yu Feng **biàn** zǒu le*

If *biàn*, on the other hand, were interpreted, in (123b″), as the correlative morpheme linking the Adp-phrase *gēn Yu Feng* with its syntactic head, it is not clear that (123b″) would be better. In other words, are Adps a sufficient link for it not to be necessary to add a correlative? In order to know whether answering yes implies a finalist view of grammar, and whether there are such structures at all, let us examine other sentences. Consider (124):

(124)   MANDARIN CHINESE (Hagège 1975: 309)
   yóuyú Riben shèhuì jīngjì   de   dìguózhǔyìxìng
   due.to Japan society economy CONN.Adp imperialist.nature
   jiù   chǎnshēng   le   Riben zhànzhēng de
   therefore be.produced PST Japan war   CONN.Adp
   dìguózhǔyìxìng
   imperialist.nature
   'due to the imperialist nature of Japanese society and economy, the war waged by Japan has (?therefore) an imperialist nature'

If the "therefore" in the English translation of (124) is not very felicitous, it appears, on the other hand, that (124) itself, which contains a less literary correlative, *jiù*, whose meaning is the same as that of *biàn* in (123b″), is a common Chinese sentence type. Chinese also uses various other correlatives: *cái, ér, lái, qù*, in association with Adp-phrases (cf. Hagège 1975: 308–14). I will conclude that the use of correlatives with Adp-phrases is a language-dependent phenomenon, but certainly one that is not universally ruled out (cf. Section 4.1.1.4).

Two observations may be added. First, in languages using a comitative marker, either as an option or, in *with*-languages, as the only possibility, the other participant—the one expressed by the noun-phrase which is not so marked, and which often is the syntactic subject of the sentence—may appear either as a first person dual or as a first person plural. An example is Russian:

(125)   RUSSIAN
         my   s   nim
         1PL with 3SG
         '(we with him=) he and I'

Second, in some *with*-languages, there is a morphological distinction not
only between a comitative Adp and a coordinator, but also, inside coordin-
ation, between two distinct markers, distinguishing natural and accidental
coordination. In these languages, while accidental coordination involves
"items which are not expected to co-occur, and which do not have a close
semantic relationship" (cf. Wälchli 2005: 1), natural coordination involves
close associations, such as those found in body parts (e.g. "hands and feet"),
kinship (e.g. "mother and child"), states or actions held to be on the same
hierarchical level, etc. The natural coordination marker is sometimes a mor-
phologically reduced form of the accidental coordination maker, as in Lenakel
(*m* vs. *məne*: cf. Moyse-Faurie and Lynch 2004), or else there are two distinct
and mutually exclusive Adps, as in Udihe:

(126)   UDIHE (Tungusic, Altaic, Russia) (Dalrymple and Nikolaeva 2006: 831)
    a. *bi   mamasa mule*
       1SG wife   with
       'I and my wife'
    b. *bi   Sergej zunge*
       1SG Sergej with
       'I and Sergei'

In conclusion, we can say that the distinction between a "with" Adp and an
"and" coordinator is well established in a majority of languages. However, the
existence of a strong minority in which this distinction is not made or not clear,
and in which "with" Adps are involved in a gradual process of degrammatica-
lization whereby they shift to "and" conjunctions of coordination, thus reflect-
ing a diachronic unstableness, points to a crosslinguistically weaker grade of
grammaticalization of comitative Adps when compared to other Adps (cf., as
further evidence, Section 3.3.3.3 on the interaction between Adps and articles).

2.5 Adps and Adp-phrases as sources of further grammaticalization

In this section I will first examine Adps in a diachronic perspective (2.5.1),
then I will show that they may be sources of new grammatical units (2.5.2).

2.5.1 *Adps in a diachronic perspective*

Adp-phrases, besides their three functions as core or peripheral complements (Section 4.1), adnominal complements (Section 4.2), predicates (Section 4.3), and their behaviour as heads with respect to certain dependent elements (Section 4.4), should also be studied from a diachronic perspective. As far as Adps themselves are concerned, a diachronic examination will be presented in Sections 3.4.4 and 3.4.5, where it will be shown that in many languages Adps are the products of the grammaticalization of verbs and nouns. But conversely, Adps can also be the sources of new diachronic processes.

2.5.2 *Adp-phrases as sources of new grammatical units*

It was shown in Section 2.4.1.1 that Adps develop from adverbs in Indo-European. But following a bi-directional move, Adp-phrases may, in their turn, yield adverbs, as illustrated in 2.4.1.1 with German examples such as *bergauf, kopfüber, talab, zweifelsohne*. Adp-phrases can also, in some of their uses, themselves become the source from which new units appear. In this section I will mention three of the main instances of such a process: infinitive markers historically derived from attributive or allative Adps (2.5.2.1), tense, aspect, or mood genesis (2.5.2.2) and relative pronoun formation (2.5.2.3).

2.5.2.1 *Infinitive markers historically derived from attributive or allative Adps* An important and interesting historical process is the production of infinitive markers from attributive or allative Adps. Indo-European languages are among those where this widespread process is well-studied. Classical Greek is a well-known example, where the *-(n)ai* and *-ein* infinitive suffixes are former dative case case-markers (cf. Hagège 1982: 74, fn. 1). As stated by Lightfoot:

> [I]n a great number of languages the infinitive marker has developed from or is homophonous with a locative preposition or case marking: Greek *-ein* reflecting an old locative, English *to*, German *zu*, Swahili *ku-/kw-*, Hungarian *ni*, Thai *thi*, Tok Pisin *long*, Hebrew *le*. (Lightfoot 1979: 195)

With respect to Bantu languages (since Swahili is mentioned here by Lightfoot), it is useful to recall that although infinitives and part of the spatial markers (both recognized under the label "locative classes", as distinct from nominal classes 1–15) are assigned to classes 17 and 18 respectively in the Bantuistic tradition, they should be considered, in Bantu languages where

they are homophonous (reconstructed as *ku-* in common Bantu), as one and the same class. The semantic homology between the originally dative/allative/purposive meaning (cf. Section 5.3.2.1) of the infinitive, as referring to a purposed move, and the semantic content of the Adps marking these functions is one more argument for this view. Consider the English examples (127a) and (127b):

(127)   ENGLISH (Dunham 2007: 416)
      a. *I helped **to** build the house*
      b. *I helped build the house*

Example (127a) implies that although I helped people, it was not necessarily with my own hands: maybe I only gave money as a contribution. In (127b), on the other hand, the absence of *to* implies a tighter link between the verb and the complement, as an iconic reflection of the tighter semantic link. Therefore, (127b) implies that I participated in the building myself. Bantu languages exhibit similar facts. In Langi, for example, we find such examples as (128a) and (128b):

(128)   LANGI (Bantoid, Benue-Congo, Niger-Congo, Tanzania) (Dunham 2007: 415)
      a. *nɔ́-ɔ́-sák-á*   *kù-vín-à*
         1SG.S-HAB-want-HAB INF-dance-VE
         'I feel like dancing'
      b. *nɔ́-ɔ́-sák-á*   *vín-à*
         1SG.S-HAB-want-HAB dance-VE
         'I must dance!'

Unlike example (128a), where the distance set up by *ku-* between the main verb and its complement marks the meaning "feel like", example (128b), where the main verb is closely associated with its complement, means that dancing is something I urgently need to do.

2.5.2.2 *Adp-phrases as sources of tense, aspect, or mood markers*   Adp-phrases are well-attested as sources of tense, aspect, or mood markers. Spatial Adps, especially, may freeze into such markers. Thus, in Old Egyptian (roughly between 3000 and 2000 BC), X(noun) + *m* ("qua", "as a") + Y(noun) means "X is Y", that is equative predicates are expressed by Adp-phrases with an essive meaning (cf. Section 5.3.3.4.e); in the same language, *ḥr* "on" and *r* "towards" are used to express, in front of a verb, the present and the future tenses respectively (cf. Hagège 1982: 48). Example (114a.ii), from Russian (in Chapter 4), contains a prepositional phrase with *k* "towards", which, although

it has not become the regular means of expressing the close future, has such a meaning. A more relevant case is found in Irish. Consider example (129):

(129)   IRISH (Harris 1991: 205)
       tá   *sí*   **tréis** *an*   *bád* *adhíol*
       be.located 3SG.F after ART boat selling
       'she has just sold the boat'

tá sí tréis has the form of a subject–predicate association containing a predicative Adp-phrase with a copula; the literal meaning of *tá sí tréis* is "(is she =)she is after". But synchronically, this is no longer the meaning of this association in example (129). What has, in fact, occurred is a grammaticalization of this temporal Adp-phrase into a verbal tense category, the one sometimes called the "hot-news" perfect, namely a tense expressing a point in time "separated from but temporally close to the moment of speaking" (Heine and Kuteva 2006: 61). Several authors have pointed out that a similar grammaticalization appears to have taken place in Irish English around the late seventeenth century. It is likely that Irish has served as a model for this evolution, since the contact between Irish and Irish English is an old phenomenon, and has led to many cases of remodelling of Irish English, as documented, among others, by Siemund, who gives the following example:

(130)   IRISH ENGLISH (Siemund 2004, cited by Heine and Kuteva 2006: 61)
       *tell mother we are just **after** receiving Her letter*
       'tell mother we have just received her letter'

That this influence of Irish on Irish English is very likely does not mean that, due to the alleged rareness of this phenomenon, there is no other possible explanation of its occurring (Heine and Kuteva 2006): in fact, such a phenomenon is not unattested, particularly in Creoles and in regional forms of Romance languages. But the interesting point is that this very same morpheme, namely one meaning "after", yields, in these languages, instead of a hot-news perfect, exactly the opposite, that is a marker of the imperfective! Thus, in Haitian Creole, the form serving both as a progressive and an immediate future marker, depending on the context, is an Adp-phrase headed by an Adp meaning "after":

(131)   HAITIAN CREOLE (Haiti) (Nougayrol *et al.* 1976: 15)
       a. *n'*   **ap**   *travay*
          1PL PROGR work
          'we are working'

b. *m'   ap   tounen*
1SG IMM.FUT return'
'I am soon coming back'

This use of *ap* is directly derived, historically, from its use in the lexifier language of Haitian Creole, eighteenth century Classical French, in whose oral registers *ap*, a shortened form of the Pr *après* "after", initially used as the head of a copulaless predicative Adp-phrase, underwent a grammaticalization process. The final result of this process was the marking of the immediate future tense and the progressive aspect, depending on the context. A possible explanation of this evolution of a word meaning "after" towards markers of opposite aspectual meanings in different languages might be that the main semantic content which is relevant in these processes is the notion of temporal contiguity, no matter whether in the past or in the future.

In another Creole language, a Pr has undergone a comparable change, as shown by (132):

(132)   MAURITIAN CREOLE (Carpooran 2007: 33)
mo pou vini   démen
1SG FUT come tomorrow
'I will come tomorrow'

Here again, we note the process by which a Pr derived from the French Pr *pour*, originally meaning "for", governs an infinitive (not distinct morphologically from a noun in this creole), and builds with it a predicative Adp-phrase, which ends up becoming, by grammaticalization, the marker of a tense.

Other examples, from European and African languages, namely Portuguese, Dutch, Poitou French, and Mbum, may also be mentioned:

(133)   EUROPEAN PORTUGUESE (Teyssier 1976: 246 and 249)
a. *ele está para chegar*
'he is about to arrive'

b. *estou a escrever*
'I am writing'

Both (133a) and (133b) are, formally, predicative Adp-phrases with a stative spatial copula, but these Adp-phrases have yielded, by grammaticalization, aspectual expressions: *estar para* does not mean "be for", but is the mark of the immediate future, and *estar a* does not mean "be at", but is the mark of the progressive, at least in European Portuguese: the other construction with this meaning—the gerund construction, for example *estou escrevendo* instead of

(133b)—has an archaic flavour in European Portuguese, while it is the only one used by Brazilian Portuguese speakers.

Similarly, in Poitou French it is quite common to hear sentences like (134):

(134)   POITOU FRENCH (Hagège 1974: 7)
        Cécile est à faire la vendange
        'Cécile is gathering the grapes'

In this regional form of French a predicative prepositional phrase with the same Latin-derived Pr *à* as Portuguese *a* is used with the same meaning, namely the progressive aspect, which modern standard French expresses by *être en train de* + infinitive, itself also historically derived from a predicative Adp-phrase.

As for Dutch, it uses an Adp-phrase *te* + infinitive as complement of an adjectival predicate *bezig*, meaning "busy" in its non-aspectual uses, to express the same progressive aspect:

(135)   DUTCH (Hagège 1993: 227)
        *dit effect is nu **bezig te** verdwijnen*
        'this effect is now disappearing'

Another example, taken from an African language, is (136), in which we can see that the progressive aspect is expressed by a comitative Adp-phrase:

(136)   MBUM (Adamawa-Ubanguian, Niger-Congo, Cameroon, Chad)
        (Hagège 1970, II: 222)
        mì kà lénà
        1SG with watching
        'I am watching'

The evolution of Adps towards modality markers is also attested. For example, in the Hassaniyya dialect of Arabic the assimilative comparative Pr (cf. Table 5.1) *kīv* "like" (*kīf* in most Maghrebi dialects, *kayfa* in Classical Arabic) has yielded two distinct markers: one of them, meaning "apparently", is the result of the combination of *kīv* with the relative pronoun *lli* "who" or the indefinite *ḥadd* "someone"; the other, a deontic morpheme, is the result of an auxiliarization of *kīv*, which thus gets person markers like a verb and is followed by *gbäyl* "a short time ago" and the modal *'ād* (imperfective *i'ūd*) "become"; they are illustrated, respectively, in (137a) and (137b):

(137)   HASSANIYYA ARABIC (Semitic, Mauritania) (Taine-Cheikh 2004: 321, 325)
        a. *huwwä kīv   lli   lāhi   yəmši*
           3SG   'like' RP about.to leave.3SG.M
           'he seems to be about to leave'

b. *zayd kiv-t-u   gbäyl   i'ūd*
   zayd kiv-PST-3SG a.short.time.ago become.3SG.IPF.M
   yəmši   šōr   əl   ḥāsi kəll   yāwm-əs-səbt
   leave.3SG.IPFT.M towards ART well every day-ART-seven
   'Zayd should go to the well every Saturday'

2.5.2.3 *Adp-phrases as sources of relative pronouns*   Adp-phrases yielding
relative pronouns is an uncommon, and therefore interesting, phenomenon.
Consider (138):

(138)   ZENAGA (Taine-Cheikh 2007: 303–9)
        a. *äsk-äg   i ādäy wär-än   y-ərəšš*
           prefer-1SG.IPFT at turban NEG-PART 3SG.M-torn
           'I prefer a turban which is not torn'

        b. *tənəštyəmt i'd   uzza'rag   wär aṣhaḏäḏ*
           woman.F   DEM see.PST.1SG NEG healthy
           'the woman (nohom) I have seen is not in good health'

        c. *äsk-äg   tnəššəytmən i'd‹   äyš ahḍag*
           prefer-1SG.IPFT woman.PL   DEM SUB can.1SG.PRS
           šīwiy-äg   ət-šiny
           talk-1SG.IPFT   with-3SG.F
           'I prefer the women with whom I can talk'

        d. *äsk-äg   tənəštyəmt ār   ahḍag*
           prefer-1SG.IPFT woman   with.whom can.1SG.PRS
           šīwiy-äg
           talk-1SG.IPFT
           'I prefer a woman with whom I can talk'

In (138a) one can see that the relativization of the subject is, in Berber languages
as in many languages without a relative pronoun, the participial strategy. In
(138b) it appears that there is no other strategy, for the relativization of the
object, than zero in the place where English has *who(m)* (or zero) for humans.
Although the general subordinator *äyš* makes it possible to relativize any oblique
complement as in (138c), one can also use another tool, because the language has
made up relative pronouns by combining Prs with person markers. The results
of these combinations are, with the Prs *of* "on", *əš* "with (instrumentive)" and *är*
"from", the forms *āf*, *āš*, and *ār* respectively. Berber languages are known to be
lacking in true relative pronouns, as shown, for Kabyle, by example (66). It is
an impressing fact that nevertheless, one of them, Zenaga, although, like other
Berber languages in the family, it has no pronoun for the relativization of the
object, has made up three oblique relative pronouns. *ār* "(from=) with whom"
appears in (138d).

2.6 Problems of terminology: adposition, relator, case-marker, flag, functeme

I have studied above the relationships between

- Adps and cases (Section 2.2);
- Adps and the term they govern (Section 2.3);
- Adps and word-types that might be mistaken for them (Section 2.4);
- Adps and various morpheme types that are historically derived from them (Section 2.5).

I have therefore taken for granted, so far, that the very term "adposition" can, at least provisionally, be used as a relevant one. It is now time to justify this choice. I will first ask what term can best cover Adp and case under one and the same heading (2.6.1), then I will give the reasons why Adp is the adequate term for what it refers to (2.6.2).

2.6.1 *Searching for a cover term for Adp and case*

Linguists, particularly typologists, considering the properties shared by what the preceding sections have called *case* and *adpositions*, have long been in search of a cover term. *Case* itself is often considered to be such a cover term. But there are at least two reasons to reject it: first, *case* says nothing of the position of the function marker, which is very important as far as Adps are concerned, as shown in Sections 2.3 and 2.4; second, the notion of case is, already, a polysemous one (cf. Section 2.2). These reserves also apply to another widespread term: *case-markers*, which, in addition, is less usable than a single word. Another term, *relator*, does not refer to position but has the advantage of explicitly stressing, from a functional perspective, the very *relation* between the governed term and the head on which it depends. *Relator* has constantly been used by the founder of the Amsterdam brand of Functional Grammar (cf. Dik 1983, 1997).

However, *relator* does not refer exclusively to the two types of function markers generally called case and adposition, since it is also used to speak of connectives inside the noun-phrase and of interpropositional conjunctions such as subordinators and coordinators. Lehman's (1995: 74–87) *case relators* and *adverbial relators* are more precise but not very handy; and the same is true of *case role marker*.

Other labels, also useful as cover-terms for *case* and *adpositions* and also stressing the syntactic and semantic relationship of a noun-phrase to its head, have been proposed. One of them is *flag*, used, for example, by linguists

working in the framework of Relational Grammar (cf. Johnson and Postal 1980), or by Aissen, who writes, about Tzotzil:

Tzotzil uses prepositions and so-called "relational nouns" to mark Noun-phrases for their grammatical or thematic relations—to FLAG them, in the terminology of Relational Grammar. (Aissen 1987: 101)

Flag appears incidentally in an article by Zwicy (1992: 375) under the form *flagged* used as the title of a subsection, but the term is not taken over subsequently in the article, where the more general term *marked* is used. *Flag* also occurs in Trask 1997: 106, 227f, 245f, where, according to S. Eliasson (p.c.), it designates

a morph that foreshadows another morpheme in the Basque finite synthetic verb. In his words, "[t]he term 'flag' denotes an extra morph which almost always precedes a dative agreement-marker" ([Trask 1997]: 106), and "[w]hen a dative agreement-marker is present, it is almost invariably preceded by a flag" ([Trask 1997]: 227). (Eliasson p.c.)

Aissen and Trask's statements do not make it clear whether linguistic units other than the governed term of Adps can also be flagged or not, for example whether in addition to nouns flagged by case or Adps, it is likewise possible to say that nouns are flagged for gender, class, number, etc., and verbs for person, etc. Moreover, the term *flag* simply says that something is marked by a certain segment. It leaves unsaid the type of specific information which is given here and the functional domain which is reflected. Thus, *flag* is not a functional term. Moreover, this term does not say anything to linguists, for a simple reason: it is a metaphor. Admittedly, this makes it quite free of any loaded past in linguistic terminology. But it keeps something of its original meaning, even though it has taken derived meanings and is used today to refer to something, as a record for special attention or a tab of metal or cardboard that is attached to a card or a folder to make it easy to find among others in a file, etc.

I would like to propose another term: *functeme.* I coin it in the following way: the suffix -*eme* , in the terminology of linguistics as well as in that of other sciences, regularly refers to a unit (often the smallest one) of what the root says, as in *phoneme, toneme, sememe,* etc.; the root, in *funct-eme,* says that the unit in question merely indicates the function of the element it governs, no matter whether this unit is an affix, a clitic or an Adp. German -*en* in *er sieht ein-en Tisch* "he sees a table" indicates that the noun-phrase *einen Tisch* is the object of the verb *sieht* "sees". English *for* in *he works for my friends* indicates that *my friends* is the benefactive complement of the predicate. It is

obvious that Prs like *for* also have a meaning, and this is the main reason why *case* was originally used by Fillmore (1968) in a semantic acceptation. But *functeme* says precisely what relators actually are from the morphological and syntactic points of view: they are units of function-marking. And *functeme* is shorter than *function marker*. The only drawback of *functeme* is that it is a new term, although it has something in common with *functor*, suggested by Hockett (1958: 264f.) to cover inflectional affixes and various types of function words. Linguists should not hesitate to create new terms, provided these terms meet requirements, such as that of a case/Adp cover-term.

2.6.2 *Justifying the term* adposition

The term *adposition*, taken as the very title of the present book, has been used from the start and is therefore considered as the most adequate one, or, at any rate, the least unsatisfying. It is, in addition, the most widespread among modern linguists, especially typologists. Yet it is not pointless to provide arguments to justify it. If one wants to stress the importance of word order, then *adposition* is justified, since what it says exactly is that the function markers it designates are defined as morphemes that occupy a certain position with respect to their governed term, that is a position mostly close to it. On the other hand, if one does not consider word order but wants to retain the fact that Adps are morphemes that indicate a syntactic and semantic relationship between their governed term and the head in a sentence, clause or noun-phrase, one will recall that this relationship is often characterized as a case, and therefore refer to Adps as *non inflected case markers*, since *case* does not designate only what has traditionally been called *case* for more than twenty centuries. But there are differences between Adps and cases in several respects (cf. Section 2.2.), and we will see further differences in Chapters 3 and 4. It seems preferable, therefore, to keep the term *adposition* as referring to a specific type of case marker. In addition, since inflected cases often derive historically from Postpositions, the notions of case and Adps should be kept distinct in terms of time dimension.

3

A crosslinguistic survey of the morphological diversity of adpositions and adpositional phrases

Now that a comprehensive characterization of Adps has been given in Chapter 2, it is time to study them from the morphological point of view, showing the diversity they exhibit in this respect. This will be done in four steps:

1. first, I will examine the distribution of Adps in the languages of the world, as viewed by various authors (3.1);
2. then I will study the word-order characteristics of Adps, and the Adp types these word-orders produce (3.2);
3. thirdly, I will examine some special morphological characteristics of Adps and Adp-phrases (3.3);
4. finally, I will examine the relationships between Adps and the main lexical units, verbs and nouns (3.4).

3.1 On the crosslinguistic distribution of Adps

In this section I will first comment on the scarcity of available material and the diverging opinions on Adps (3.1.1), then I will show the spread of Adps in terms of geography and language families, as compared to that of case affix systems (3.1.2).

3.1.1 *Problems due to the scarcity of available material and to disagreement between authors*

Determining whether a language does or does not have Adps is not always an easy task, because, as noted by Dryer (2005*b*: 347), "grammars do not generally say if a language lacks Adps and one can only infer the absence of adpositions from a thorough grammar".

This situation can have far-reaching consequences on general studies devoted to language diversity and language typology. Thus, Nichols, noting that her 1992 book "deals with three major types of constituents: noun-phrase (NP), adpositional phrase (PP), and clause (S)" (1992: 46), repeatedly stresses that in many languages there are no PPs, or no known PPs: PPs are "under-developed" (*ibid.* 10, about Klimov's (1977) active languages), "often either lacking or undescribed" (Nichols 1992: 72, about South America) (cf. also *ibid.*, 58–60, 64, 203). She notes correlations in certain areas, for example Northern Eurasia, New Guinea, Oceania, North America, and Mesoamerica, where she observes (*ibid.* 71–2) an interesting inverse proportion between dependent-marking and "PP". But the scarcity of data leads her to dismiss the evidence that could be obtained from taking "PP" into account:

Many languages lack Adps as a part of speech [...] Any comparison of types that includes the PP is problematic because many languages lack true PPs and many grammars make no mention of PPs or their functional equivalents, so in computing head/dependent types I exclude PPs, taking NP and S only. [...] I omit PP since the languages lacking it or lacking descriptions of it would have their complexity artificially lowered if I counted it.   (Nichols 1992: 58, 59–60, 64)

It should be recalled that "lacking" is not the same thing as "undescribed" and that the absence of Adps in a handbook or reference grammar does not imply that the language described therein lacks Adps. Furthermore, since any Adp is by definition the head of an Adp-phrase (cf. Section 2.3.2.1), the functional unity of Adp-phrases crosslinguistically is enough to suggest that one should qualify the idea, also expressed by Nichols (1992: 72), that due to the similarity between the "PP" and either the NP as "in Africa, the Ancient Near East, South and South-East Asia, and Oceania", or the clause as "in northern Eurasia", there is a "considerable variability of the PP from area to area". Functional unity also seems to be a sufficient reason to treat identically verb- and noun-derived Adps, unlike Nichols (cf. Section 3.4.5).

In fact, even when grammars propose thorough studies of Adps,

linguists differ in the criteria that they use in determining the existence of Adps in a language, [so that] there may be considerable discrepancies in the percentage of languages which are seen to lack Adps altogether.   (Bakker 2005: 199)

Chapter 2 of the present book has proposed precise criteria to decide what are and are not Adps. What we had so far were statistical assessments which are, in fact, based on cursory definitions of Adps. Such assessments reflect some agreement with respect to the proportions of adpositionless languages, as opposed to the large number of case affixes that a few languages possess (e.g. fifteen in Basque,

seventeen to twenty-three in Hungarian, depending on authors). The agreement between authors as to adpositionless languages appears if we compare two of them. One is Nichols, who writes (1992: 205) that "PPs are quite frequent in the Old World compared to either the Pacific or the New World". The other is Bakker, who writes, about the 378 languages in his sample:

Of the North-American languages in the sample, 48% are adpositionless; for Australia the percentage is as high as 73%. The overall figure for adpositionlessness is around 17% in the current sample.   (Bakker 2005: 199)

It should also be stressed that the distribution of Adps varies greatly from one language to another. DeLancey writes:

Where Tibetan or Japanese have fewer than half-a-dozen postpositions, English has scores of prepositions—indeed, no fixed number can be determined, as the language is slowly but steadily adding to the set, and at any synchronic point we are confronted with an indeterminate number of complex constructions (e.g. *instead of*) and forms which are or may be on the way to developing into prepositions (e.g. *surrounding*) whose categorial status must be to some extent a matter of the judgement of the particular analyst. This obviously correlates with the fact that most English prepositions have relatively elaborate meanings which are more lexical than grammatical. Even many "simple", ordinary prepositions such as *around, through*, or *among* represent complex spatial configurations which in many languages woud need to be lexicalized as nouns, verbs, or adverbs. Not surprinsingly, English has an impoverished set of relator nouns (e.g. *on top of, in back / front of*) compared to a language like Tibetan, since the kind of distinctions which Tibetan makes with relator nouns are made in English among prepositions. Even concepts which seem quite basic to an English speaker, such as those represented by English *in, on*, or *under*, can be expressed in Tibetan only by a relator noun combined with the general locative postposition *la*.
(DeLancey 1997: 5)

Other languages are no richer than Tibetan. For example, besides *c-i*/*c-a* (cf. Section 3.4.6.2), Wolof has very few prepositions, and Palauan has scarcely more than one simple preposition (cf. Section 3.3.2.2.a). Kanuri has only one Pr, *sái* "except", and half a dozen Pos, three of which, *ngurôn, kajíyà* (both governing the ablative: cf. Section 2.2.3.4.b), and *gənyâ*, also mean "except"! Conversely, Navaho has many postpositions. Armenian has twenty-two Pos and about fifteen Prs. An artificial language, Esperanto, also has many prepositions (thirty-three at least), not only because its inventor, Zamenhof, imitated Latin, but also because Adps, although often omitted or scarce in various languages and contexts (cf. Section 4.1.4), nevertheless contribute to explicitness, one of Zamenhof's main purposes. However, natural languages are far richer (cf., for example, 3.2.2.2 on Estonian).

3.1.2 *Differences between Adps and case systems in terms of geographical spread and language families*

Despite their functional near-identity, Adps and case affixes are, to some extent, competing systems (cf. Section 2.2.2 on the differences between these systems). Adps, in their main two forms as Prs and Pos, are, with very few exceptions, spread across countries and language families. In the present section I would like to compare this spread with that of case affixes. In an article published in 1931, Jakobson writes that according to Trubetzkoy,

[D]eclension is in general a fairly rare phenomenon and is unknown to most of the languages of the world. The geographical zone of declension is fairly limited. It covers the whole of Eurasia and goes somewhat outside its limits.   (Jakobson 1962: 196)

In fact this is an overstatement, since there are case systems in African, Amerindian (especially Penutian), or Australian languages, let alone a number of Semitic (including Classical Arabic) and Cushitic languages. What remains true, nevertheless, is that the Eurasian continuum is not only a geographically homogeneous, but also a very wide area, and that even though most of the language sub-families which constitute this area are not linked together by some common internal properties of their case systems, certain parts of the continuum do exhibit such properties. This applies in particular—provided one grants that the Altaic stock may be included in this continuum—to such Siberian languages as Yakut and Evenki, which, as regards the number of cases, are very close to each other, having nine and eleven cases respectively (cf. Kilby 1983: 49).

But despite this spread and this regional homogeneousness, Adps are more widespread than case affixes. In addition, we note a kind of balance between them, at least with respect to local markers. We know that historically local case suffixes very often develop out of Pos, and a certain equilibrium tends to set up between the two, so that

the more local cases a language has at its disposal, the fewer local postpositions it would need and vice-versa [. . .]; in Permiak, e.g., there are many local cases and relatively few local postpositions while in Ostyak the inverse is the case.   (Austerlitz 1980: 240)

3.2 Main types of Adps: prepositions, postpositions, ambipositions

In this section I will successively study some differences between Prs and Pos (3.2.1), then the phenomenon of ambipositions (3.2.2), and lastly some positional features of Adps in various languages (3.2.3).

3.2.1 *Prs vs. Pos*

3.2.1.1 *Distribution of Prs and Pos in the languages of the world*   Besides the positional feature distinguishing Prs from Pos, one rarely finds Adps distinguished from other morpheme types or from lexemes by specific structural features. Among the few languages that can be mentioned in this respect are White Hmong, Green Hmong, and Diandongbei, all of them Hmong-Mien languages spoken in South-West China, as well as Northern Vietnam, Laos, and Thailand, and also France, French Guyana, and Australia, where some Hmong communities live in diaspora. In these three Hmong languages a score of noun-derived spatial and temporal Prs bear the low-glottalized tone (transcribed by a final -*m* in the official script adopted in China). Some of them are *saum* "on", *nrawm* "behind", *ntawm* "at", *zaum* "at the time of" (Niederer 2001–02: 367–8).

The Hmong-Mien languages represent a rather uncommon situation. Word-order facts are the only important criterion. The main difference between Prs and Pos is the very simple fact that they are not in the same position with respect to their governed term. This importance of word-order in the study of Adps has also been shown above by three facts: one is the impossibility of inserting the word *right* in English when an attributive phrase appears in immediately postverbal position instead of a final Adp-phrase, as shown by example (3f) in Section 2.2.1.1. The second fact is the possibility of separating Adps, but not case affixes, from their governed term by some inserted material (cf. Section 2.2.2.4.b–c).

The third word-order fact, to be studied in Section 3.4.4, is that in languages where Adps with a verbal source are found, these Adps are Prs if the word-order is VO and Pos if the word-order is OV. Thus the explanation of the reason why these languages have Prs rather than Pos or conversely is not hard to find: in both of these two situations the reason is historical, since the derived Adps follow the same word-order as the lexemes from which they are derived. The same applies to the other two situations, studied in Section 3.4.5, that is to languages where Adps with a nominal source are found: these Adps are Prs if the head noun precedes the dependent noun, and Pos if the head noun follows the dependent noun.

Available statements on the geographical distribution of Prs and Pos do not take into account all of these four situations. For example, Dryer notes that

the distribution of prepositions and postpositions on [his map 85] resembles the distribution of object and verb on map 83 [concerning this topic]. Prepositions predominate in the following areas: (i) Europe, North Africa and the Middle East; (ii) central and southern Africa; (iii) a large area extending from South-East Asia

through Indonesia, the Philippines, and the Pacific; (iv) the Pacific North-West in Canada and the United States; and (v) Meso-America. Postpositions predominate (i) in Asia, except in South-East Asia; (ii) in New Guinea, except in the North-West; (iii) in North America, except in the two areas noted above; and (iv) in most of South-America. Postpositions are more common than prepositions in much of Australia, especially among Pama-Nyungan languages, but in the northern part of Northern Territory both types occur with comparable frequency. In fact, for many Australian languages, especially Pama-Nyungan, there is no evidence of Adps of any sort. While prepositions predominate in Africa as a whole, there are still many languages with postpositions, including an area in West Africa, and one to the north-east.

(Dryer 2005*b*: 347)

As for the fact that VO languages may also have Pos derived from nouns, like Mandarin Chinese, it is also ignored by some authors. Thus, we find a mistaken statement in Greenberg (1963: 71):

if the relational expression precedes the noun [...], the language is postpositional. However [...] there is at least one exception, Chinese, a prepositional language in which the relational expression precedes the noun.   (Greenberg 1963: 71)

This statement is inspired by a mechanical application of the frequent correspondence between SVO and Pr or SOV and Po. It does not take into account the diversity of possible sources of Adps in a given language. As a matter of fact, while the Prs of Mandarin Chinese have a verbal source (cf. Section 3.4.4), its Pos have a nominal source: for instance, *lǐ* "in", *qián* "in front of", *shàng* "on", *wài* "outside of", originally spatial nouns, have come to grammaticalize into Pos. In a similar way, Ewe, which is also SVO, but G(enitive) N(oun), has both V-derived Prs and N-derived Pos.

This is shown in detail in Hagège (1975), a study, based on Chinese and many other languages, of two of the four possible types: its chapter 1 shows the grammaticalization of object-preceding verbs into Prs in Chinese, Khmer, Thai, Vietnamese, Yoruba, Welsh, Squamish, Creole languages like Afrikaans, Papamientu, and French-based Caribbean Creoles: Guadeloupe Creole, Guianese French Creole, Martinique Creole; its chapter 3 shows the grammaticalization of head-nouns that follow their dependent noun into Pos in Chinese, Ewe, Indo-Aryan languages, Bilin and other Cushitic languages, Mande languages, Uralic languages.

As for the distribution of the possible types in the languages of the world, out of 1033 languages, 417 are VO and have Prs, and 427 are OV and have Pos, while only 38 are VO and have Pos (among them are, for example, Koyra Chiini (Songhai, Mali) and Arawak (Arawakan, Suriname), and 10 are OV and have Prs. Among these one finds, inter alia, Khamti (Thai, Burma) and

Persian. These situations may be explained by contacts with other languages (cf. Hagège 1982: 58–9): some diachronic changes in word order are due to borrowed models that produce new Adps or a new word order. Besides Persian and Khamti, this is known to be the case in Amharic (Semitic, Athiopia), where the adoption of Pos, otherwise unknown in most Semitic languages, results from the pressure of neighbouring Cushitic languages. The same is true of Gurage, Gafat, Harari, and other SVO Semitic languages of Ethiopia, but not in Tigre, both conservative and geographically closer to the former territory of Ge'ez, the old Classical Ethiopic language, with only Prs, which remains today in written form (cf. Weninger 2001: 1766).

With respect to VO languages with Prs derived from nouns as shown in (61a) (Section 3.4.5.1), the list includes Bemba, Fulani, Hausa, Mbum (cf. Hagège 1970: 267–9), Swahili, Ajië, Iaai, Berber languages, Modern Standard Arabic, Vietnamese, where *trên* "on", *trong* "in", for instance, are the grammaticalized versions of former nouns. Examples of OV languages with Pos derived from nouns as shown in (61b) are Indo-Aryan, Altaic and Uralic languages, Abkhaz, Afar, Bambara, all dialects of Basque, Bilin, Burmese, Burushaski, Gafat, Navaho, Quechua.

In addition to VO languages with Prs and OV languages with Pos, there are languages which are OV but have (verb-derived) Prs. This "discrepancy" may be explained by a recent structural change due to contact with other languages. Thus, to stress this point again, Amharic and Tigré, South Semitic languages of Ethiopia and Eritrea, as well as Thai languages like Khamti (Burma) and Ahom (extinct language formerly spoken in Assam, North-Eastern India), have undergone considerable influence from neighbouring languages, respectively Cushitic and Tibeto-Burman, all of them OV (Hagège 1982: 58–9). It seems to be the case that the order of object and verb is the one that changes first (cf. Dryer 2005c: 387).

3.2.1.2 *Differences between Prs and Pos*   As just mentioned, a language can possess both Prs with a verbal source and Pos with a nominal source, Chinese being an example. More generally, there are many languages with both Prs and Pos, whatever their sources. What is referred to here is not the situation where a prepositional language happens to possess one accidental, and explainable, case of a Po, or conversely, as in Tariana: in this postpositional language there is a single case in which Pos can be preposed to a noun, and that is when the noun is added as an afterthought (Aikhenvald 2003: 222–3); moreover, Tariana has a single Pr, namely *te* "until", but this is probably a loan from Portuguese *até* "until", just like *teê* "until" in Tucano (Tucanoan, Brazil, Colombia), also spoken in the Upper Rio Negro territory, North-Western Brazil, and known by most speakers of Tariana, over whom it has a great influence (Aikhenvald 2003: 233).

Besides this particular situation, most languages that have both Prs and Pos do not have only one accidental Pr or Po. The relative distribution of Prs and Pos, in these languages, is of two types. First, we find languages in which the distribution is uneven. Koyra Chiini, for example, has more than twice as many Pos as Prs, and in addition, its Pos have broader senses (cf. Section 5.3.1) and are more commonly used (cf. Heath 1999: 103). Interestingly, Koromfe (Gur, Niger-Congo, Burkina-Faso, Mali) also has fewer Prs than Pos, but among its two Prs, one has a very broad meaning and is very frequent (Rennison 1997: 73, 77). Second, there are languages in which a fairly good number of each of the two positional types of Adps is found, even if we note a statistically dominant type. Balkan Romani is such a case: it has many Pos, but also many Prs, distinguishing itself thereby from other modern Indo-Aryan languages; and it seems that its Prs are an internal development rather than the result of borrowing (cf. Boretzky 2004).

The division of Adps in a language into Prs and Pos can reflect functionally complementary relationships. Thus, in Finnic languages,

if an Adp expresses path ("via, along", etc.) or a circumstantial meaning ("in the middle of, around"), then it is probably a preposition, or, at least, may be used as a preposition, cf. Finnish *keskellä tietä* (with a postposition *tien keskellä*), Estonian *keset teed* "in the middle of the road", Veps *rat'k korviš* "through the ears", Livonian *pits riekkõ* "along the road". If an adposition expresses one of the more basic spatial relations ("in, on, at, beside, below, under, upon, to, from"), it is a postposition.

(Grünthal 2003: 63)

We have taken for granted, so far, that the difference between Prs and Pos is merely positional, and that they do exactly the same job. This deserves to be thoroughly examined, however. The clitic nature of a number of Pos in many languages results in the fact that they are more tightly linked to their governed term than Prs, especially when, because they have a nominal source, they are the products of a grammaticalization of body parts or relational nouns, and thus originate from a noun referring to an entity possessed by an owner that will become the governed term (cf. Section 3.4.5). Prs, on the other hand, are more rarely so linked to their governed term, and often stand in a closer relationship with their head, especially when the latter is the verbal nucleus on which the prepositional phrase depends. Furthermore, since there are more suffixed than prefixed case affixes crosslinguistically (even though the latter are far from being unattested, as recalled in 2.2.2.3), and given that Adps are often the sources of cases, Pos are much closer to cases than Prs. Finally, it appears that adpositionless languages behave like postpositional languages in terms of a number of parameters such as those proposed by Tsunoda

et al. (1995). These authors also state (*ibid*: 759) that "stranding of Adps is more common in prepositional languages than in postpositional languages" and that "[p]ostpositional languages will be more likely than prepositional languages to lose their Adps". The latter prediction is in keeping, according to the authors, with the view, expressed in Bybee *et al.* (1990: 3), that "postposed grammatical material is more likely to affix than preposed grammatical material".

Thus, Prs and Pos are less similar to each other than is generally believed. Some authors go even further, distinguishing Pos from Prs, and not only on a positional basis. According to Austerlitz,

[i]t is very difficult to determine exactly what a postposition is, how it differs from a noun or an adverb, and to judge its productivity. [...] There is much polysemy in postpositions, where local, temporal and other categories seem to melt together more easily than in case suffixes, so that the primary meaning of a postposition or a stem to which case suffixes are added so as to function as a postposition is often elusive.

(Austerlitz 1980: 240)

Such considerations should warn us against hasty generalizations about the total sameness of Prs and Pos, even though it remains true that as far as their function is concerned, they are two positional variants of one and the same grammatical category. It should be recalled that in certain situations, there may be some hesitation as to whether a given function marker is to be treated as a Pr or as a Po. This will now be examined in the next Section.

3.2.2 *The phenomenon of ambipositions*

3.2.2.1 *Definition of ambipositions*

3.2.2.1.a **Ambipositions vs. circumpositions** It would be interesting to examine one particular situation, namely that in which one language does not possess only Prs and/or Pos, but also Adps that can either be preposed to their governed term or postposed to it. Such bi-positional Adps may be called *ambipositions*, following Glück (ed.) (2000: 38) and Libert (2006), rather than Grünthal (2003: 59) and Reindl (2001), who call them, respectively, *bipositional adpositions* (or *bipositions*) and *alterpositions*. Other terms are found in the literature, like Bailey's (1929) *pre-postposition*. Libert (2006: 3) also mentions *pre-in-position* for "those which are found before and within, but not after the complement, and *in-postposition* for those occurring within or after, but not before their object". But Libert does not give examples. For affixes, I coined the term *simulfix* in Hagège 1986: 26, on Palauan.

All these notions should not be confused with that of *circumposition*, which does not refer to the possibility of a morpheme occupying either of two

positions, but to the fact that it is made of two parts, which occur simultaneously in a phrase, one at its beginning and one at its end, just as one speaks of *circumfixes* when the bearing unit is not a phrase but a word. An example of circumposition, from the Nanafwe dialect of Baule, is given in Section 4.3.3. Another example is Afrikaans:

(1)   Afrikaans (Germanic, Indo-European, South-Africa) (Suelmann 1999: 63)
     a. *sy*   *gaan* ***na die*** *stasie* ***toe***
       3SG.F go   to ART station to
       'she is going to the station'

     b. *hy*   *klim* ***in die*** *trein* ***in***
       3SG.M climb in ART train in
       'he is getting into the train'

Circumpositions are a rather uncommon phenomenon. There may be some discussion on whether (1a) and (1b) contain circumpositions or not. One of the main characteristics of Afrikaans is precisely to strengthen some morphemes by repeating them in two positions—before and after the term they determine, as is also the case in old Dutch, its lexifier, and in some contemporary Dutch dialects. Negation repetition is obligatory in Afrikaans when the scope is the last term. It is a strong tendency when the Adp-phrase expresses a move, as in (1a) and (1b). I will therefore consider that *na ... toe* and *in ... in* are circumpositions, even though the two parts of each of these complexes also have independent uses and are not constitutive parts of a single word.

3.2.2.1.b **Ambipositions and homonyms** Ambipositions should not be confused with homonyms, that is two different Adps which happen to have the same form and to appear, respectively, in pre- and postnominal positions. Thus,

Ewe has a preposition *tó* which means "through" and a postposition *tó* meaning "edge". They have different sources, according to Ameka (2003), the former coming from a "verbal source" (p. 52) meaning "pass (by)", the latter having the "putative source" (p. 55) *tó* "ear". If speakers are aware that these words have different origins and if they are listed as separate items in their lexicons, then *tó* would not be an ambiposition, but an example of homonymy where the two homonyms are each restricted to a different position. (Libert 2006: 54)

3.2.2.1.c **Ambipositions and "adverbial prepositions"** Treating certain facts under the heading "ambipositions" seems preferable to other treatments, such as the one which resorts to "adverbial prepositions". In a book about Slovenian, Herrity writes:

All Slovene prepositions precede the word they govern. Apparent exceptions are the adverbial prepositions *naspróti* "opposite", *navklúb* "in spite of". These normally precede the noun or pronoun governed, but sometimes follow a pronoun. In these instances they are considered to be adverbs.   (Herrity 2000: 254)

Herrity adds elsewhere (2000: 257) that "adverbial prepositions are adverbs that may function as prepositions". He gives the following examples:

(2)   SLOVENIAN (Herrity 2000: 281)
    a. *stanújemu naspróti gostíln-e / gostíln-i*
       we.live   opposite pub-GEN / pub-DAT
       'we live opposite the pub'

    b. *sedim   têbi/ti   naspróti*
       I.am.sitting you.SG.DAT opposite
       'I am sitting opposite you'

In fact, rather than treating *naspróti* in (2b) as an adverbal preposition, one could simply say that it is a postposition, since it follows a pronoun, and sets up a relationship between this pronoun and the verb. On such a view, *naspróti* should be considered as an ambiposition.

3.2.2.2 *Ambipositions across languages*   Ambipositions are fairly irregularly distributed between languages. "German has some, but perhaps not as many, and English has few" (Libert 2006: 88). At the opposite end, Estonian has approximately 185 Adps, of which 135 are exclusively Pos, 29 exclusively Prs and 19 ambipositions, according to Tauli (1980: 113).

Various other languages known to possess ambipositions deserve to be mentioned here. In Attic prose, the old word order still prevalent for *díkên* "in the same way as", *héneka* "because of", or *khárin* "for the love of", all of them used as Pos, was possible for some Adps, which, as in Vedic Sanskrit, had not become sheer Prs: among them were *epí* "on", *perí* "around", *hupó* "below", which had, in this case, a different tone, graphically marked by a shift to the first syllable, hence *épi*, *péri*, and *húpo* respectively. This postpositional use had long been possible in poetry for most disyllabic Adps, as shown by the coexistence, in Homer, of both a prepositional and a postpositional use of the same Adp, for example:

(3)   HOMERIC GREEK
    a. (*Il.* 16: 303–304)
       apò hês   alókhoio
       from POSS.3SG.GEN wife.GEN
       '(far) from his wife'

b. (*Il.* 16: 45)
    neōn   *ápo*
    ship.GEN.PL from
    'from the ships'

Besides the stress, there is no other apparent difference, either functional or semantic, between the prepositional and postpositional uses. The postpositional use, a word order falling under the heading of *anastrophe*, and often used by classical Greek authors of tragedies, was sometimes derided as affected (cf. Section 5.2.2). This usage is to be found even in Plato, as illustrated in (4b):

(4) CLASSICAL GREEK (Smyth 1956: 369)
    a. *elpídōn*   *kalôn*   *húpo*
       hope.GEN.PL beautiful.GEN.PL below
       'by high hopes' (Euripides, *Hecuba*, 351)

    b. *toû*   *hosíou*   *te*   *péri* *kai* *toû*
       the.GEN.M.SG holy-GEN.M.SG both about and the.GEN.M.SG
       anosíou
       unholy.GEN.M.SG
       'concerning both that which is holy and that which is unholy'
       (Plato, *Euthyphrôn* 4e, MG)

Traditionally, Latin Pos, since they are much rarer than Prs except in some literary styles like those of Lucretius or Tacitus, are called "postposed Prs" by Latinists, for example Ernout et Thomas, who mention (1953: 119) *causā* "for", *gratiā* "for, on behalf of", *fini* "up to, until", *tenus* "up to, as far as", all of them formerly being nouns preceded by their dependent noun in the genitive. Some monosyllabic Adps of Latin, such as *ad, cum, de* and many di- or trisyllabic ones, such as *circa, contra, coram, inter, penes, propter, sine, ultra, versus,* which are generally Prs when the governed term is a noun, tend to follow it when the governed term is a personal, demonstrative, or relative pronoun, as evidenced by such uses as *me-, te-, nobis-, vobis-cum* "with me", "with you SG", "with us", "with you PL", *te coram* "in front of you", *hunc propter* "because of this man", *illud quo de agitur* "that (which about =) about which one talks, the matter in question" (*ibid.*). When the governed term is a noun-phrase, Latin Adps are inserted between the noun and its dependent element, as in *magna cum cura* "with much care", *paucos ante dies* "few days before", *hanc adversus urbem* "against this town", and we also have an ambipositional status of *inter* in expressive phrases, characteristic of the poetical style, like *timores inter et iras* (Horatius, *Epistolae* 1, 4, 12, cited by Ernout et Thomas 1953: 120) "between fright and anger".

From the sixteenth to the nineteenth centuries, in English poetry and literary prose, Prs are often used postpositionally, as seen in (5):

(5) SIXTEENTH–NINETEENTH-CENTURY-ENGLISH (Libert 2006: 19)

    a. *a lovely ladie rode **him faire beside*** (Spenser, *Fairie Queene* I, 1, 4)

    b. *hasten **your generals after*** (Shakespeare, *Antony and Cleopatra* II.iv.2.)

    c. *with what delight could I have walkt **thee round*** (Milton, *Paradise Lost* ix.114)

    d. *why, yes, they were famous eyes, famous **the diocese through*** (Walpole, cited in Charnley 1949: 277)

    e. *what's Yarrow but a river bare,/that glides **the dark hills under**?* (Wordsworth, Yarrow unvisited 26)

    f. *for having but thought **my heart within**,/a treble penance must be done* (Scott, cited in Onions 1932: 102)

    g. *but **these between** a silver streamlet glides* (Byron, *Childe Harold*, cited in Bøgholm 1920: 16)

    h. *as the boat head wound along/the willowy **hills and fields along*** (Tennyson, cited in Onions 1932: 102)

    i. *we talked **the whole night through*** (Charlotte Brontë, *Shirley* II, chap. XVIII, 352)

    j. ***the whole morning through** he sat listening* (Walter Besant, *The Bell of St. Paul's,* chap. XXIII, 145)

All the Pos in (5) can be replaced by Prs, especially in more recent English, where ambipositions, again, are not numerous, and may imply a change in meaning, as shown by (6a–b). Furthermore, when a morpheme is located either before or after a noun-phrase, this does not always mean that it has the status of an ambiposition, as shown by (6c–d):

(6) MODERN ENGLISH (Dixon 1982: 27–8)

    a. *Mary passed **by John***

    b. *Mary passed **John by***

    c. *he got **over the illness***

    d. *he got **the illness over***

About (6a–b), Dixon writes (1982: 28): "the latter—but not the former—implies that she purposely ignored him", and adds: "I have not been able to find any other examples of rightward movement with *by*". As for (6c–d), one could follow Libert, who writes:

I would assign different structures to these two sentences: *over* in [(6d)] is a secondary predicate (of *the illness*), while [(6c)] has the sense of a metaphorical motion to a point past the illness, and further one might see *over* as a part of a complex verb *get over* rather than an independent Adp.   (Libert 2006: 8)

Other situations exist, which are also complex. Consider (7):

(7)   MODERN ENGLISH (Rooryck 1996: 228)
    a. *decisions were made (straight)* **from the top down**
    b. *nice apartments can be found (right)* **from the third floor up**
    c. *he fell* **down the stairs**

Rooryck asserts that *from … down* and *from … up* in (7a–b) are circumpositions. However, to be treated as the two discontinuously located but simultaneously required components of a circumposition, *from* and *down* in (7a) as well as *from* and *up* in (7b) must both be necessary, which is not the case in (7a–b), where *down* and *up* may be left out, and "do not select the preceding noun-phrase", as recognized by Rooryck himself. In (7c), on the other side, *down* seems to govern *the stairs*, and may be treated as a Pr, but a morpheme which governs a noun in only one of the two positions before and after it may not be treated as an ambiposition.

The few ambipositions of French are part of the participle-derived Adps presented in Section 3.4.4. They are characterized by the fact that the postpositional use is rarer and more literary than the prepositional one. A semantic difference between the two positions is also observed with some French ambipositions, just as it is observed for some of those found in Dutch. This is shown in (8) for French and (9) for Dutch (a language in which other Adps, such as *door*, which means "by"; "during" as a Pr, but only "through"as a Po) have a wider range of meanings in one of the two positions):

(8)   FRENCH (Libert 2006: 23)
    a. *il   a   travaillé* **durant** *l'*   année
       3SG has worked during ART.SG year
       'he has worked (at some unspecified times) during the year'

    b. *il a travaillé l'année* **durant**
       'he worked throughout the year'

(9)   DUTCH (Helmantel 2002: 34)
    a. *Hein klimt   de   berg   op*
       Hein climb.3SG.PRS ART mountain on
       'Hein climbs up the mountain'

b. *Hein klimt*   ***op de   berg***
   H   climb.3SG.PRS on ART mountain
     i. 'Hein climbs on the moutain'
    ii. 'Hein climbs onto the mountain'

In addition, French has kept a trace of the former status of Adps with a participial source. Ambipositions in postpositional use sometimes show gender and number agreement with their governed term, whether this agreement is materially marked, as in (10a), or only noted in the orthography, as in (10a′), whereas ambipositions in prepositional use never agree with their governed term, as is shown morphologically by (10b) and orthographically by (10b′):

(10)   CONTEMPORARY FRENCH (Hagège 2004a: 74–81)
   a. *tout le monde   sort,*   *les*   *filles*   ***comprises***
    everybody   go.out.3SG.PRS ART.PL girl(F.PL) included.F.PL
    'everybody out, including girls!'

   a′. *tout le monde   sort,*   *les*   *filles*   ***exceptées***
    everybody   go.out.3SG.PRS ART.PL girl(F.PL) excepted(F.PL)
    'everybody out, except girls!'

   b. *tout le monde sort,* ***y compris*** *les filles*

   b′. *tout le monde sort,* ***excepté*** *les filles*

The agreement between *filles* and the Po which follows it, whether morphological as in (10a) or only graphic as in (10a′) is a trace of the former participial status of *compris*, which remained, until the beginning of the seventeenth century, a member of a passive periphrasis *étant comprises* "being included", whose subject was the noun-phrase *les filles*. The reason why this noun-phrase functioned as the subject of a verb was that *comprises* was not yet grammaticalized from a verbal participle into an Adp, and therefore, *les filles* could not yet, at that stage of the language, be treated as the complement of an Adp. In (10b) and (10b′), on the other hand, *compris* (preceded by *y* in modern French unlike its negative counterpart, the ambiposition *non compris(es)* "not included") and *excepté* are both used as Prs, and not as Pos. The reason for that is the sequential pressure made on former Pos by the general characteristic of the French adpositional system, that is the fact that most of them are Prs. With such a word order, there is no reason for agreement to occur as a diachronic trace of the former verbal status of the Adp.

It may be stressed that *durant, (y) compris, non compris,* and *excepté* are, with *nonobstant*, the only participle-derived Adps of French that can be

ambipositions. The Italian equivalent of French *nonobstant* also has a limited number of uses, being found in expressions such as *nonostante ciò/ciò nonstante* "despite this". This does not seem to apply to its Dutch equivalent *niettegenstaande*, nor to German ambipositions such as *ausgenommen* "excluding", *betreffend* "concerning" (and their Dutch equivalents, respectively *uitgezonderd* and *aangaande*), *bar* "lacking", *inbegriffen* "including", *zunächst* "next to". An illustration is provided in (11):

(11)   GERMAN (Libert 2006: 27)
       Der   neue Wagen kostet,
       ART.M new   car   costs

       Zubehör ausgenommen/ausgenommen Zubehör, etwa   12,000 Mark
       accessories excluded   about 12,000 mark
       'the new car costs, excluding accessories, about 12,000 marks'

Furthermore, the sequential pressure of Prs on Pos which I have referred to above with respect to French ambipositions is also observable in German, where, according to Harris and Campbell,

the change of the postpositions *wegen* and *statt* into ambipositions is an example of harmony-by-extension: the rule placing other Adps before heads was *extended* to these two (though not to *willen*). In their prenominal placement, these Adps do not continue the order of the construction out of which they developped.

(Harris and Campbell 1995: 213–14)

wegen can thus occur on either side of its object, assigning it genitive case. When appearing as a Pr, it can have a final meaning in addition to its causal meaning, and it can also take dative complements, which is similarly true of *unbeschadet* "in spite of" and *ungeachtet* "regardless of", except that these can do so only when they are Pos, for example *allen Unfällen ungeachtet* "regardless of all mishaps". Conversely, some German ambipositions which standardly assign dative case can also take genitive objects: *entgegen* "towards", *entsprechend* "according to", *gemäß* "according to", *nahe* "near". Other German ambipositions exhibit complex behaviour. *zufolge*, for instance, when it means "in accordance with" or "according to",

usually governs the genitive when it stands before the noun, and the dative when it follows the noun (the favourite position). [. . .] In the meaning "in consequence of" it usually precedes the noun and takes the genitive.   (Curme 1922: 374)

The Adp *entlang* assigns the genitive or the dative when it is a Pr, whereas when it is a Po, its governed term will usually be accusative, but can also, more rarely, be dative (cf. Di Meola 1998: 205). Another Adp, *gegenüber* "opposite",

while it is not restricted with respect to order when its object is headed by a noun, can only be a Po when it has a pronominal object (cf. Libert 2006: 68). Finally, *nach* "to, after, according to" can assign many a case, and occupies positions related to its meanings and to the type of complement it has (cf. Schröder 1986).

Other Indo-European languages exhibit phenomena which could be interpreted in terms of ambipositions. Classical Persian had several ambipositions, among them *bāz* "away from". Spanish has Adps whose prepositional and postpositional variants differ slightly in the segments that they consist of: one finds *bajo el puente* "under the bridge", as well as *cuesta abajo, escalera abajo,* and *río abajo,* respectively "downhill", "down (the) stairs", and "downstream". One also finds *tras la puerta* "behind the door" as well as *muchos años atrás* "many years before", and one can see that here, there is a meaning distinction in addition to the morphological difference. But in this example one could consider *atrás* as an adverb and *muchos años* as a measure phrase modifying it, let alone that *tras* has a spatial sense while the sense of *atrás* is temporal. Moreover, the putative governed term of *abajo* can neither be made plural nor be modified by an adjective (Di Tullio 1994: 73), and such restrictions raise some doubts about its status as a governed term of an Adp.

There are fewer doubts on (Eastern and Western) Armenian, where *batsi* "in addition to, except" (which requires the ablative with which it forms a complex Adp) is a Po when it governs a proper noun, as in *Hakopits batsi* "besides Hakopits", and a Pr when it governs a demonstrative, as in *batsi deranits* "in addition to that". Armenian has other ambipositions, like *ankax* "independently of", *hakarak* "in contradiction with", *hamajayn* "in accordance with", *handerj* "despite", *sksaç* "from", *šnorhiv* "thanks to". Languages of the Baltic group also have ambipositions, for example Lithuanian *link(ui)* "towards", *viẽtoi* "instead of", *for* "because of; for", *dèl'* "because of", which is *dēļ* in Latvian. Latvian also has ambipositions whose two positional variants differ not only by their form, but also by the case they assign to their governed term, and by its type, like *starpā* and *starp*; both mean "between", but the former governs the genitive of a single noun, while the latter governs the accusative of "a single noun [...] or [...] more than one noun" (Fennell and Gelsen 1980: 298). With respect to Uralic languages, some of the Hungarian Adps that do not have person–number marking to agree with their governed term ("naked postpositions" in Marácz's (1989) terms) behave as ambipositions, the most frequent being *át* "over"; and Hungarian is known for suffixing person-markers to Adps, thus used as Prs, while it uses these same Adps as Pos when they govern a noun (cf. example (92) in Section 3.4.6.6). Besides the nineteen ambipositions attributed to Estonian by Tauli (see the beginning of this

section), let us mention Finnish ambipositions, like *keralla* (+ GEN) "with", *kohti* "toward", or *lähi* (+ PARTV) "close to". In another language, Warekena, the prepositional and postpositional uses of some ambipositions are distinguished either semantically, as in (12a–a′), or pragmatically, as in (12b–b'):

(12)   WAREKENA (Northern Arawakan, Arawakan, Venezuela, Brazil, Colombia)
        (Aikhenvald 1998: 328–30)

   a. *ni-weyehē   ni-ša-palu   ima-hā   ima Diutsu enu-waba*
      3PL-want.PAUS 3PL-go-PURP with-PAUS with God   sky-DIR
      'they want to go with God to heaven'

   a′. *neyupa nulami -mine   a:tapi ima*
       paddle 1SG. father-DEC.NF stick with
       'my late father paddled with a stick'

   b. *ša-wa   nupa-hā-li   atapi šutši-li   niwe-li   atapi wa-hā*
      go-PFT find-PAUS-REL tree big-REL tall-REL tree   then-PAUS
      uwa-hā   uwa-hā   api-hī   matu-le   matu-le
      climb-PAUS climb-PAUS take -PAUS cup-POSS cup-POSS
      uwa-hā   atapi minaši
      climb-PAUS tree   on
      'he went and found a big tree, a big lofty tree, then he climbed (it), he climbed, he took his cup, his cup, he climbed on (this very) tree'

   b′. *wa   ni-yeleta-mia-hā   tawa:pe wa   uwa-hā   mina*
       then 3PL-arrive-PFT-PAUS jungle   then climb-PAUS on
       atapi
       tree
       'then they came to the jungle, then he climbed on a tree'

Examples (12a–a′) show that *ima* has a comitative meaning when used as a Pr, and an instrumentive meaning when used as a Po; and (12b) shows that "a newly introduced, or a focused participant is likelier to occur as a postposition" (Aikhenvald 1998: 328), whereas (12b′) shows that the Adp *mina(ši)* "on" appears as a Pr when the spatial participant does not play an important role in the narrative.

Libert also mentions (2006: 39–45) Old Georgian, Somali, Hopi, Quiché, and Berbice Dutch Creole as languages that might have ambipositions; but he does not consider the examples cited as indisputable. It thus appears that identifying ambipositions as such is not always an easy task, if only because what seems to be a prepositional occurrence is often, in fact, a postpositional clitic whose governed term agrees with the following noun, given the rule of

obligatory cross-referencing. This is shown by example (13b), in which the structure of the Adp-phrase does not, in fact, differ from that of the Adp-phrase in (13a), *madka* functioning as a Po in both cases, except that in (13b) the governed term *a* is echoed by the noun *was* (an apposition if one prefers to call it so) belonging to the noun-phrase *gi-was-ra-kis*:

(13)   PALIKUR (Northern Arawakan, Arawakan, Brazil) (Aikhenvald 1999: 97)

    a. *eg ka-annipwi-yo*   *was-**madka***
       3F ATTR-work-DUR.F field-in.FLAT
       'she worked in the field'

    b. *wis-uh   pes   amew-e   ay-ta-re*
       1PL-EXCL come.out sneak.up-COMPL there-DIR-AN
       *a-**madka**   in   gi-was-ra-kis*
       3M-in.FLAT DEM.M 3M-field-POSS-PL
       'we went out stealthily there across their field'

It seems that we also find, as opposed to a prepositional use, a postpositional clitic, in Cora (Corachol, Uto-Aztecan, Mexico), where Langacker (1977: 22) cites the phrases *haplan ţ-čanaka* (on ART-earth) *"on the earth" and haiţţri-hapl _a (clouds-above) "above the clouds" (we see that here, as in the Spanish cited above, there is a slight segmental difference between the two variants: according to Langacker (ibid.), the prepositional variant hapwan may be reanalysed as containing a bound personal pronoun -na which has become -n). More generally, in various languages postpositional clitics sometimes appear with pronouns, as opposed to prepositional variants, which appear before noun-phrases. This does not mean, however, that the postpositional clitic is necessarily a shorter word, as illustrated by Kipeá (Macro-Ge, Brazil), where we find, according to Rodrigues (1999: 170), i-djoho (3SG-to) "to him/her" and do i-de (to 3SG-mother) "to his/her mother": we see here that the postpositional variant is a bisyllabic word, as opposed to the prepositional variant.*

A number of examples given above confirm that dedicated ambipositions are much less numerous crosslinguistically than one could believe. However, there is no doubting the existence of the phenomenon of ambipositions. No thorough study of Adps can neglect the fact that in many languages, some members of this word-class can appear either as Prs or as Pos, often with differences in form and/or meaning.

3.2.3 *On some positional features of Adps in various languages*

In Section 2.2.2.4.c I studied some word-order differences between Adps and case affixes. Some particular features of Adps with respect to word-order

remain to be studied here. This will be done in the present section, which will examine, successively, Adp ellipsis in the case of a succession of two identical Adps (3.2.3.1) and Adp migrations (3.2.3.2).

3.2.3.1 *Adp ellipsis in the case of a succession of two identical Adps*   An Adp can be in immediate or mediate contact with another Adp, for example when the governed term of an Adp is itself an Adp-phrase (cf. examples (71) and (72) in Section 2.3.2.2.c). However, the use of two identical Adps in contiguity is generally avoided in West European languages, for example when one of them belongs to a family name. Although (14a) and (15a) are not totally ruled out and may be used by some speakers, (14b) and (15b) are generally preferred:

(14)   FRENCH

    a. *Il   étudie   le*   Cours   de   Linguistique   Générale   *de   de*
       3SG   study.PRS   ART   course   of   linguistic   general   of   of
       Saussure
       Saussure
       'he is studying the *Course of General Linguistics* by de Saussure'

    b. *Il étudie le* Cours de Linguistique Générale *de Saussure*

(15)   GERMAN

    a. *dieses Buch ist* **von** *von Wartburg geschrieben worden*
       DEM   book   is   by   von   Wartburg   written   been
       'this book was written by von Wartburg'

    b. *dieses Buch ist* **von** *Wartburg geschrieben worden*

3.2.3.2 *Adp migrations: tonicity, non-tonicity, stranding, clisis*   In many languages distinguishing a strong, or tonic, form of personal pronons and a weak, non-tonic one, it is the strong form which is used with Adps, as in English, French, or German, where we have, with the same sense, *with him, avec lui, mit ihm,* as opposed, respectively, to *he plays, il joue, er spielt.* But Adps themselves are often non-tonic. This is of course the case when Adps are morphologically very short, being reduced, for example, to a single consonant. Thus, an English Adp, the genitive marker *-'s,* which marks a relationship between the head noun-phrase and the dependent element to which it is attached, whatever the size of this dependent, has simply the form of a sibilant consonant. *-'s* is therefore attached not only to short dependent elements, but even to long ones. It can thus be the last word of a relative clause, whether an adverb as in (16), or a stranded Adp as in (17); *-'s* can also be cliticized to a word which appears itself at the end of an Adp-phrase governed by a noun, as in (18):

(16) *the colleague I worked with yesterday's computer* (cited in Mel'čuk 2006: 168)

(17) *the man I talked to's theory* (Plank 1989: 27)

(18) *the man with the grey hat's nose* (*ibid.*)

The non-tonicity of Adps in many languages may have other effects besides phonetic reduction. One of them is stranding, illustrated by the stranded Prs *with* in (16) and *to* in (17), and often optional, for instance in English, as shown by the possibility of saying either (19a) or (19b):

(19) a. *to whom is he talking?*

      b. *whom is he talking to?*

(19b) is free in English, but submitted to constraints in many other languages (cf. Jaworska 1994: 3307–8); this stranding is impossible, for example, in Polish, and possible only for conjugated Prs in Breton. A stranded Pr should not be confused with a postposition, or a postpositional use of a Pr. For example, Danish *over* in (20a) is, according to Brøndal (1950: 15), a Po, while it is a stranded Pr within a relative clause in (20b):

(20) DANISH (Germanic, Indo-European, Danemark) (Brøndal 1950: 14–15)
      a. *land-et   over*
         country-ART throughout
         'throughout the country'

      b. [...] *som jeg   sørger   over*
                 REL 1SG.S lament.PRS over
         '[...] which I lament over'

Another effect of the non-tonicity of Adps in many languages is cliticization. Adpositional clitics have been studied in 2.2.2.2. Here, I would like to recall some rare cases of cliticization of Pos to the first tonic word they may attach to, by application of Wackernagel's (1892) law. Such cases may result, according to Boas, in a remarkable

firmness of [the] word-complex [which] is due largely to the complete phonetic coalescence of the syntactic particle with the preceding word, and to its function as determining the syntactic value of the following word.   (Boas 1911: 440)

One of the examples he gives is an exact illustration of this phenomenon:

(21) KWAKIUTL (Northern Wakashan, Wakashan, Canada) (Boas 1911: 538)
      kwe:x-x'i:d-e:da   bəgwá:nəma-xa q'ása-sa   t'ə́lwagayo:
      hit-INCEPT-DEM man-P   otter-INSTR bludgeon
      'the man started to hit the otter with a bludgeon'

This example was cited in Hagège (1982: 55) to illustrate the contradiction between clitic positioning and syntactic government. It was cited again in two subsequent works taking over this topic: Klavans (1985: 107) and Stebbins (2003: 406) (with strange changes, in both of these articles, of the original sentence given by Boas, these changes being perhaps read by them into Anderson (1981)). This sentence exhibits interesting positional features, also found in Australian languages and in Iranian languages like Pashto (cf. Hagège 1982: 55): the demonstrative *e:da*, but also, more relevantly here, the patient marker *xa* and the instrument marker *sa* are all cliticized, respectively to the transitive verb *kwe:x*, to the subject noun *bəgwá:nəma*, and to the object noun *q'ása*. In other words, the Adps in this sentence are prosodically and morphologically attached to words with which they have no relation syntactically. The conclusion is that this attachment is only due to stress structure. Thus, these rare cases of clitic Adps have the interesting property, like other clitics, of simultaneously attaching syntactically to their grammatical host while attaching, quite independently, to another—phonological—host.

But Adps may themselves, in the first position in a sentence and again by Wackernagel's (1892) law, be clitic hosts if we interpret the following example as containing two markers, the indicative and a complex pronominal group, a sagittal one (for this term, which I coined in Hagège (1982: 107) to refer to the blending of subject and object pronouns into a single unanalysable unit, cf. Section 2.2.2.4b), both cliticized to the Pr *'u:yuqwa* :

(22)   NOOTKA (Nitinaht) (Southern Wakashan, Wakashan, Canada) (Haas 1969: 115)
         'u:yuqwa-si-cuχ   ha'ukwap
         PMK-IND-1SG/2SG feed.PRS
         'it is you whom I feed'.

Finally, it may happen that Adps behaving as clitic hosts also undergo, in addition to that, a position change, with the result that their very positional characteristic as a Pr or a Po is modified. Thus, a Pr may appear as a Po, due to the fronting of its governed term, while, at the same time, this Pr behaves as a clitic host. Consider (23a–b):

(23)   SASAK (Sundic, Western Malayo-Polynesian, Austronesian, Indonesia) (Austin 2004: 204, 209)
         a. *mbé   éléq-n   tulak*
            where from-3SG.A   return
            'where is he coming back from?'

b. i. *sai*   *guru-n*   *Ali kance-m*
        INTERR.ADJ professor-CONN.Pr Ali COM-2SG.A
        yaq   bedait
        FUT   meet
        'which one of Ali's professors will you meet?'

   ii. *sai guru-n Ali yaq-m kance bedait*
        same meaning as (23b.i).

In (23a), *mbé* "where?", being focused and fronted, can no longer follow the Pr *éléq* "from", whose governed term it is, and in addition, *éléq*, being the first stressed unit in this sentence, serves as a host for clitic *-n*, third person agent. As a result, the Pr *éléq* appears as a Po, and hosts an element which is not its governed term! In (23b), the fronted noun phrase *sai guru-n Ali* cannot host a clitic, so this role is assigned to the first stressed word in the sentence, namely either the comitative Pr *kance* or the future marker *yaq*. Hence in (23b.i), again, there are two odd facts: the comitative Pr *kance* is both preceded by its governed term even though it is not a Po, and followed by a clitic personal affix which is not its governed term!

3.3 On special morphological features of Adps and Adp-phrases

It has appeared in previous sections that Adps have very diverse forms from one language to another. The present section aims to present in a synthetic way some of the morphological features of Adps crosslinguistically, as such an examination, so far, is only to be found scattered throughout the literature, essentially in monographs and handbooks on various languages of the world. I will first study those, among Adps, that illustrate the main process of word-formation which constitutes one of the important chapters of morphology, namely those which, unlike simple Adps (3.3.1), are Compound Adps (3.3.2). I will then examine the morphological relationships between various elements and Adps as well as Adp-phrases (3.3.3).

3.3.1 *Simple Adps*

Simple Adps are those that are neither compounds nor derivatives, that is those that cannot be analysed into component parts. As expected, simple Adps are, at least generally, morphologically shorter than those which are made of more than one element, even though simple Adps may exhibit, as far as facts other than segmental are concerned, complex prosodic, especially tonal, phenomena. This is the reason why simple Adps tend to be monosyllabic in many

languages, although they are not always so (cf., for example, the Indonesian Prs and the Guarani Pos studied, respectively, in Sections 3.3.2.2.c and 3.3.2.2.d below). In the few languages, like Japanese, where core functions, namely subject and object, are not marked by case affixes but by Adps, these Adps are monosyllabic. Nearly all the most frequent Prs of English are also monosyllabic, as well as semantically very versatile, as a result of the formal erosion brought about by recurrent use.

There are plenty of examples of simple Adps marking very frequent functions in the languages of the world. They confirm both Zipf's (1949) Law of Abbreviation, and his Principle of Economic Versatility, which establish, respectively, an inverse relationship between the frequency of occurrence of words and their length, and a direct relationship between the number of different meanings of a word and its frequency. For instance, the English Prs *for, in, of,* and *to* are much more frequent and have many more dictionary entries than *about* or *above,* let alone *opposite* or *underneath* (cf. König and Kortmann 1991: 111). The same applies to French, German, Spanish, Italian, Russian, or Arabic. Original Arabic Prs, like *li* "to", *bi* "in; by; with", *ka* "like", *fī* "in", *min* "from", have only one syllable. Most of the other Arabic Prs are dissyllabic.

Simple Adps are often constitutive members of Compound Adps, as will appear in Section 3.3.2. Conversely, native speakers, if their attention is called to the phenomenon, can become aware that Adps considered as simple and not spontaneously parsed by them are in fact easy to analyse etymologically. In various languages this occurs particularly for Adps having comparative and exclusive semantic functions (cf. Table 5.1 and Sections 5.3.1 and 5.3.3.4.d): transparent examples are English *unlike* (negative prefix + *like*), *without* (*with* + *out*; cf. *within,* which has taken a spatial meaning), Israeli Hebrew *lelo* ("for" + negation), *belo* ("with" + negation), and more familiar *bahuts* ("with" + "(the) outside", almost exactly like *without*), all meaning "without", colloquial Maghreb Arabic *blɛ/bla* (*b* "with" + negation *lɛ/la*) "without", whose Classical Arabic equivalent is *duna* or *biduni* (*bi* "with" + *duni,* oblique form of *duna* "low quality", "low position", "beyond", "below", which ends up meaning "absence").

3.3.2 *Compound Adps*

3.3.2.1 *Characterizing Compound Adps* Compound Adps should not be confused with Complex Adps, which were studied in Section 2.2.3 as constituted by the combination of an Adp with a case affix. Certain languages have Adps made from the association of various markers, and comparable to complex Adps, but in fact not analysable as Complex Adps, because these languages have no case affixes. An example is Japanese. This language uses, to express spatial relations, a grammaticalized noun followed

by a spatial simple Po, and preceded by a governed term related to it by the genitive marker, as *ie-no naka-ni* (house-GEN inside-INESS) "inside the house", *gakkô-no soto-kara* (school-GEN-outside-ABL) "from outside the school", etc.

Compound Adps should also be distinguished from compound cases. These belong, in inflectional languages, to a paradigm in which certain cases are used as a basis for the formation of other cases, as in Tokharian A, where the instrumental, the dative, the locative, etc., are built on one of the core cases (nominative, accusative, genitive), namely the accusative: ex. nominative *kaṣṣi* "teacher, guru", accusative *kaṣṣi-n*, instrumental *kaṣṣi-n-yo*, dative *kaṣṣi-n-ač*, locative *kaṣṣi-n-an* (cf. Mel'čuk 2006: 143).

Modern examples are often found in Daghestanian languages, in some of which most cases are formed by adding their suffixes to the form of the ergative, a primary case, while in others, like Tsakhur and Lak, cases other than the nominative are formed by adding their suffixes to an empty morph which is itself added to the stem (cf. Mel'čuk 2006: 145). One even comes across languages in which, while some cases are built on another case, some others are built on no less than two cases. In Dargi, for instance, the nominative of the word meaning "book" is *žuz*, the ergative is *žuz-li* the dative and allative are respectively *žuz-li-s* and *žuz-li-či*, the comitative is *žuz-li-či-l* (Mel'čuk *ibid.*)

Being distinct from compound cases such as just described, Compound Adps should now be characterized. Many Compound Adps are formed, crosslinguistically, by the combination of adverbs with core spatial or non-spatial Adps, for example, in English, *ahead of, along with, apart from, away from, independently of, together with,* etc., in such Adp-phrases as *ahead of his rivals, away from her friends, together with this evidence,* or, in Modern Greek, *prìn apò* "before", *mazì mè* "with", *kontà sè* "near". Many other Compound Adps are formed by the association of two or more Adps into one and the same unit, either to express various meanings, as with *as for*, or to render time and space specifications: English *from behind,* Persian *piš* "before" + *az* "from" = "before", Punjabi *tõ* "from" + *páílāā* "before" = "before", or Welsh *oddi ar* "from (on)", *tuag at* "towards", *y tu allan i* "outside". Another Compound Adp type is the association of two Adps, one older than the other, into one and the same Adp, as shown by some inflected Celtic prepositions (cf. Section 3.4.6.1). Certain adpositional elements are recurrent in Compound Adps. Albanian, for instance, forms many Compound Adps on *për* "for": *përbrenda* "inside", *përbri* "toward", *përjashta* "outside", *përkëtej* "on this side of", *përmes* "through", *përqark* "around", *përsipër* "above".

Another widespread type of Compound Adp consists of those formed by the association of nominal, adjectival, or participial elements with one monosyllabic

Adp, as in *because of, contrary to, depending on, due to, thanks to,* or with two, as in *with respect to, in front of, on behalf of,* or *on my, your, her, X's,* etc. *behalf, for the sake of X* or *for X's sake, on a par with,* etc. Other examples are Israeli Hebrew *mifne* "because of", *lema'an* "for the sake of", *bišvi:l* "with the purpose of", *bemakom* "instead of", Amharic *kə ... bəfit* "ago", *kä ... tač* (at ... base=) "under", as in *kä-bet-tač* "under the house", or Guarani *rekavo* (cf. Section 3.3.2.2.d), etc. Some Compound Adps may even contain an element which has the form of a negation, like French *non loin de* (cf. Section 3.4.6.7), or the form of a subordinating morpheme, like the *que* of the French essive Compound Adp *en tant que* (cf. Section 5.3.3.4.e).

A particular type of Compound Adp, widespread in Bantu, is represented by those which associate a connective Adp with a class morpheme, this association itself entering into more complex Compound Adps (cf. Section 3.4.6.5) and containing *ya* (marker of class 9 *y* + the connective Pr *a*). Swahili also has locative Compound Adps containing *na* instead of *ya*, like *karibu na* "close to" and *mbali na* "far from". One last Compound Adp type that deserves to be mentioned is constituted by spatio-temporal circumpositions, like the temporal Mandarin Chinese circumpositions *zì*(/*cóng/zìcóng*) ... *yǐlái*(/*yǐwǎng*) "since (+ a date)", *zhǐ dào* ... *zhīhòu* "only after (+ a date)" (cf. Hagège 1975: 229, 309): as is shown by this translation, this circumposition contains a qualifying element *zhǐ* "only, just" (in fact a constitutive part of its form) comparable to those which are found in certain languages where Adps can receive dependent elements with respect to which Adps behave as heads (cf. Section 4.4.1).

The adpositional status of Compound Adps is established when a lexematic component which makes part of them has no free use outside them. Such is the case, for instance, of the *sake* and *behalf* components of the English purposive Compound Adps mentioned above which contain these two components. However, the limits between Compound Adps and Complex Adps are not always clear-cut. Thus, German *mitsamt* "with" is constituted by the association between *mit* "with" and *samt* "with", and to that extent it is a Compound Adp, but both Prs govern the dative, and so does *mitsamt* itself, so that *mitsamt* is also a Complex Adp.

Compound Adps are considered by some authors as not belonging to the category of Adps. For example, Brøndal (1950: 13) denies the status of Adp to English *on account of,* French *lors de* "at the time of", *quant à* "as for", *jusqu'à* "until", *à force de* "by dint of", Italian *accanto a* "close to", Dutch *naar gelang van* "according to", Danish *i anledning af* "on occasion of", *med hensysn til* "considering", *paa grund af* "because of". His reason for ruling out all these Compound Adps is that he defines as Adps only those words that are simple and unanalysable. He argues that the number of forms like those above can be

indefinitely augmented and that they contain many heteregenous components, so that they are not organized as a system. If we primarily take into account the function of all these forms, namely the fact that they put their governed term in relationship with a head, these merely morphological arguments cannot be retained.

3.3.2.2 *Some case studies*   I will first study Compound Adps in three related Austronesian langages, to show that despite their close genetic and typological relationship, they treat Compound Adps in very different ways. I will then examine another interesting case, that of Guarani.

3.3.2.2.a **Palauan** Palauan (Western Malayo-Polynesian, Austronesian, Palau Islands) is unique in the world in that it seems to have only one simple Adp, namely *r*. Furthermore, as a logical corollary of its being the only one in Palauan, *r* is strongly polysemic (cf. Hagège 1986: 112–14), as shown by examples (24a–i), where *r* expresses a number of adverbial meanings. But *r* can also, in association with other elements, yield Compound Adps, by means of which it extends its capacity to express other adverbial meanings, essentially spatial ones, as shown in examples (25a–g):

(24)   PALAUAN (Hagège 1986: 112–13)

a.   *ŋ   m<il>ilíl   r a   sers   a   ŋálɔk*
3SG play<PST> r DEPR garden DEPR child
'the child was playing in the garden'

b.   *a   Masaháru a   mo   me r a   'é(i)   r a*
DEPR Masaharu DEPR FUT go r DEPR fishing r DEPR
klúkuk
morrow
'Masaharu will go fishing tomorrow'

c.   *m   təbəd-í: a   beáb r a   blsibs!*
2SG.SBJ pull.IPFT-3SG.O DEPR rat r DEPR hole
'pull the rat out of the hole!'

d.   *kə   '<u>arm   r a   klcáld?*
2SG suffer<VMK> r DEPR heat
'does the heat pain you?' (lit. 'do you suffer because of the heat?')

e.   *a   əkəbíl a m<il>kikiŋl-í: a*
DEPR girl   a VMK-<PST>-dirty.up.PFT-3SG.O DEPR
bil-él   r a   ŋaráŋ?
cloth-POSS.3SG r DEPR what?
'what did the girl dirty up her clothes with?'

f. η   *mla-mə-ngím*   *r a*   *babi:* *a*   *ralm*
  3SG REC.PST-VMK-drink.IPFT *r* DEPR pig   DEPR water
  'the water has just been drunk by the pig'

g. η   *mə-ləkói*   *r a*   *məkəmád*
  3SG VMK-speak   *r* DEPR war
  'he is talking about war'

h. *tia*   *l*   *ureór a*   *beót r a*   *ðəl-ál*
  PROX.DEM LM work DPR easy *r* DEPR mother-3SG.POSS
  'this work is easy for his mother'

i. η   *kədúη*   *r a*   *rə-sə'əl-íl*   *a*   *Masaharu*
  3SG well.behaved *r* DEPR PL-friend-3SG.POSS DEPR Masaharu
  'Masaharu behaves better than his mates'

(25) PALAUAN (Josephs 1975: 280–4)

  a. *a*   *katuu a*   *mə-'iuaiu* *r a*   *beb-ul*   *a*
    DEPR cat   DEPR VMK-sleep *r* DEPR top-3SG.POSS DEPR
    tebəl
    table
    'the cat is sleeping on the table'

  b. *a*   *bilis a*   *mə-'iuaiu* *r a*   *euη-el*
    DEPR dog   DEPR VMK-sleep *r* DEPR underneath-3SG.POSS
    a   *tebəl*
    DEPR table
    'the dog is sleeping under the table'

  c. η   *ηar r ηi:*   *a*   *kərrəkar r a*   *məd-al*
    3SG exist *r* 3SG.EMPH DEPR tree   *r* DEPR front-3SG.POSS
    a   *bl-ik*
    DEPR house- 1SG.POSS
    'there are trees in front of my house'

  d. *a*   *Toki a*   *dəη'okl r a*   *ikr-el*   *a*
    DEPR Toki DEPR sit   *r* DEPR outside-3SG.POSS DEPR
    bl-il
    house-3SG.POSS
    'Toki is sitting outside her house'

  e. η   *ηar r ηi:*   *a*   *olu'əs r a*   *'əls-el*
    3SG exist *r* 3SG.EMPH DEPR pencil *r* DEPR inside-3SG.POSS
    a   *skidas*
    DEPR drawer
    'there is a pencil inside the drawer'

f. *a   ml-im   a   ŋar   r   a   rəbai   r   a*
DEPR car-2SG.POSS DEPR exist *r* DEPR back *r* DEPR
bl-ik
house-1SG.POSS
'your car is behind my house'

g. *a   bl-ik   a   ŋar   r   a   bita   r   a*
DEPR house-1SG.POSS DEPR exist *r* DEPR proximity *r* DEPR
skuul
school
'my house is close to the school'

The versatility of *r* appears in examples (24a–i): this Adp marks a static place in (24a), a direction in (24b), a point of departure in (24c), a cause in (24d), an instrument in (24e), the agent of a passive verb in (24f), a topic referred to in (24g), a participant's viewpoint in (24h), and the complement of a comparative in (24i). Thus, Palauan appears as an isolated case, quite distinct from other languages: such distinct relationships as place, goal, origin, cause, instrument, agent, viewpoint, and comparison standard, usually expressed, in other languages, by as many different Adps, are all marked by one and the same Pr *r* in Palauan. But in addition, Palauan also resorts to the tools provided by compounding when it comes to expressing spatial meanings. Examples (25a–g) all exhibit Compound Adps with the structure *r* + *a* + N1 whose governed term is 3POSS + appositional N2. It will be shown in Section 3.4.5 that despite the nominal features it keeps, N1 (when it stands for the head noun, as in SVO languages of the Palauan type) can be treated as a Pr, so that *r* + *a* + N1 is a Compound Adp. The same applies, in (25e), to *r* + *a* + *'əls(-el)*, an obligatorily possessed noun-derived preposition, and, in (25f) and (25g), to *rəbai* and *bita*, both of which cannot take a possessive suffix.

3.3.2.2.b **Tagalog**   Tagalog is also a language with very few simple Adps belonging to its old layer. But these Adps are not so polysemic as Palauan *r*, even though Tagalog also builds Compound Adps by combining various elements. It may combine its original Prs either between themselves, as shown by *na-sa* "in", or with other elements, as illustrated by combinations in which one of the compounding elements is the most widely-used Tagalog Pr, *sa*, for example *para-sa* "for", *dahil-sa* "because of", both resulting from the combination of original Prs with borrowed Adps (Spanish *para*, Arabic *dahil*, in these examples). In a third type, both compounding elements are autochtonous, for example *tungkol-sa*, *hinggil-sa*, *nauukol-sa*, all meaning "about, concerning", which makes Tagalog a language rich in pertentive

markers (cf. Section 5.3.1). Another type includes those that are built by addition of *sa* to a space word, followed by a genitive marker, like *sa-harap-nang* "in front of", *sa-labas-nang* "outside of".

3.3.2.2.c **Indonesian**   Certain languages have a much greater array of Compound Adps. In another Austronesian language, which in other respects has many points in common with Tagalog, Standard Indonesian (Bahasa Indonesia, spoken in Indonesia and not quite identical with Malay), we find not only the basic spatial Prs indicating the three principal relationships of an entity with space, namely the monosyllabic Prs *di* "in" and *ke* "towards", and dissyllabic *dari* "from", but also (in conformity with the general Austronesian word-structure), many other dissyllabic Prs, such as *dengan* "with", *oleh* "by", *pada* "for", *tentang* "about", *untuk* "for", and even (synchronically) original trisyllabic Prs, for example *seperti* "like". Others are not Austronesian, but borrowed from Sanskrit—*antara* "near; between", *karena* "because of", *perkara* "concerning"—or from Arabic or Persian, like the two components of *peri-hal* "about".

We also find, in Indonesian, three other types. The first one is represented by Prs produced by the grammaticalization of verbs (with the Austronesian verbal prefix *meng-* + various initial consonant changes), like *melawan* "against", *mengenai* "about", *menilik* "considering", *menuju* "towards", *menurut* "according to", *menyusur* "along", or by the grammaticalization of nouns or adjectives—*belakang* ("back") "behind", *tengah* ("middle") "in the middle of, among". The second type of Prs has the prefixes *se-*, *ber-* and/or the suffix *-an*, like *bersamaan (dengan)* "in the same time (as)", *sekitar* "around; about", *selama* "during", *sepanjang* "along, during", *sebelum* "before", *sesudah/setelah/sehabis* "after" (cf. Section 5.3.3.3.f).

The third type contains Compound Adps associating a basic spatial Pr and a dissyllabic one: *di-dalam* "inside" *dari-pada* "instead of"; *atas* "above" *bawah* "below", *belakang* "behind", *depan* "in front of" and *hadapan* (face, front) "in front of" cannot be used otherwise than as compounds, with *dari-*, *di-* or *ke-*, depending on the spatial relationship: *dariatas* "from above", *dibawah* "below", *kebelakang* "backwards". Such formations are also found in closely related Minangkabau, and in another Indonesian language, Sundanese.

3.3.2.2.d **Guarani**   Guarani, also a language with a goodly array of Adps, is an interesting example of how Compound Adps are distinguished from simple Adps by native speakers by a graphic feature. In Guarani handbooks, normative grammars, and written material, it is always recommended to write monosyllabic Pos such as *pe* "at, in; to", *gua* "(hailing) from", *gui* "from", *re* "in; by (a place)", *vo* "at the time of" in contiguity with their governed term,

while Compound Adps, which are bi- or polysyllabic, must be written separately:

(26)   GUARANI (Guasch 1956: 221)

a. *a-ha*   *óga-pe* (officially written *aha ógape*)
    1SG.ACT-go house-to
    'I am going to my house'

b. *ko*   *mitã Peru róga*   **pegua**
    PROX.DEM child Peter MUT.CONS.house from
    'this child (is) from Peter's house'

We see that the Compound Adp *pegua* in (26b), an association of the two Pos *pe* and *gua*, is separated from its governed term by a blank, unlike the simple Po *pe*, which is written in contiguity with *óga*. This applies, in fact, to all bi- or polysyllabic Pos in Guarani, whether simple or Compound Adps. Examples of such simple Adps are *ndive* "with", *peve* "up to", *pópe* "with (joy, sadness, etc.)", *pýpe* "in; by means of", *ramo* "instead of" *rehe*, "in; because of", *rire* "after", *rovake* "in front of", *rupi* "through", *ypýpe* "close to". Examples of Compound Adps are *kupépe* (*kupe* "rear" + *pe* "at, in") "behind", *rekávo* (*reka* "to search" + *vo* "at the time of") "in search of", *rendápe* (*renda* "place" + *pe* "at, in") "close to", *renondépe* (*renonde* "front" + *pe* "at, in") "in front of", *pe guarã* (*pe* (written contiguously to the governed term) + *guarã*) "for" (cf. Batoux *et al.* 2000: 12, which calls monosyllabic *pe, gui, re*, etc. "morfemas en función de posposición", and disyllabic *guarã, ndive, peve, rehe* "posposiciones").

3.3.3 *Adps and Adp-phrases in relationship with various other elements*

I will examine here, first, the behaviour of Adps with respect to the difference between nominal and pronominal governed terms (3.3.3.1), then Adps and classifiers (3.3.3.2), then Adps and articles (3.3.3.3), Adp "incorporation" (3.3.3.4), and lastly morphological changes of Adps depending on (i) the type, nature, or structure of their governed term (3.3.3.5), (ii) the nature of the thing referred to by a noun in the sentence (3.3.3.6), and (iii) several factors together (3.3.3.7).

3.3.3.1 *The behaviour of Adps with respect to the difference between nominal and pronominal governed terms*   It stands to reason that if the form of the Adp often changes as a result of its combination with various types of governed terms, the governed term itself will also undergo changes in many contexts. This fact has not yet been dealt with. I will illustrate it with two kinds of changes, one phonetic, the other morphological.

3.3.3.1.a Phonetic change of the governed term of an Adp The governed term of an Adp may undergo various changes. Logically, these changes, when they occur, affect its final part if the Adp is a Po and its initial part if the Adp is a Pr.

A classic illustration of the phonetic changes induced on governed terms by the close relationship they build with Adps is found in Celtic languages, where nominal governed terms are affected by consonant mutations. In Welsh, for instance, soft mutation (also called lenition) replaces consonants in the following way: *c-*, *p-*, *t-*, *g-*, *b-*, *d-*, *ll-* (= [x], unvoiced lateral fricative], *m-*, *rh-* (= [r≈], aspirated dental-alveolar glide) become *g-*, *b-*, *d-*, *ø-*, *f-*, *dd-* (= [ð], voiced alveolar fricative), *l-*, *f-*, *r-*. A dozen Welsh Prs are thus followed by soft mutation of the initial consonant of their nominal governed term: *am* "at", *ar* "on", *at* "towards", *i* "to", *wrth* "by", *o* "from", *dan* "under", *dros* "over", *drwi:* "through", *hi:d* "until", *gan* "with", *heb* "without", for example:

(27) WELSH (Bowen and Rhys Jones 1960: 55)
   a. *ceiniog* 'a penny'
   b. *heb geiniog* 'without a penny'

Another example of the same situation is the lenition of the initial consonant of the governed term after a Pr, which is observed in a number of Oceanic languages, such as Nêlêmwa:

(28) NÊLÊMWA (Oceanic, Eastern Malayo-Polynesian, Austronesian, New Caledonia) (Bril 2000: 44–6)
   pone 'rock' / *bwa wone* 'on the rock'.

3.3.3.1.b Morphological change of the governed term of an Adp Section 3.3.3.5.c will show that there are phenomena of morphological fusion between Adps and third person pronouns, especially in Oceanic languages, and that this might be related to the frequency of the third person as a governed term in non-dialogical uses. It also happens that, while the Adp itself does not change, the third person governed term takes on a special form. An interesting example is European Portuguese, in which the forms of tratamento (politeness), that is masculine and feminine singular *o* and *a* for direct object, and *lhe* for indirect object in both genders, cannot appear after a Pr. While Brazilian Portuguese uses *você* or *o Senhor* after a Pr as well as after a transitive verb, as in

(29) BRAZILIAN PORTUGUESE
   a. *isto*   *é para você/o Senhor*
      PROX.DEM is for   you (polite)/you (polite: lit. 'the Sir')
      'this is for you'

   b. *queria*   *falar com   você/o Senhor*
      want.1SG.COND talk   with you (polite)/you (polite: lit. 'the Sir')
      'I'd like to talk to you'

European Portuguese, in this case, always uses the form *si*, which does not have, in this use, the reflexive meaning it has in other contexts. Thus, instead of (29a–b), we have in European Portuguese, with the same meanings:

(29′)   EUROPEAN PORTUGUESE

   a. *isto é para si*
   b. *queria falar consigo*

The form *consigo* belongs to the same paradigm as those mentioned hereafter (below example (31)) for Spanish and Portuguese.

   Among other illustrations of changes in the form of words when they function as the governed terms of Adps, one may mention Zenaga, a Berber language of Mauritania, which has three distinct paradigms of personal affixes, one for direct objects, one for indirect objects, and one for governed terms of Prs; the forms of the second and third of these paradigms are the same in the first person singular: *-i'h*, but in the second person masculine singular, they are, respectively, *-āš* and *-š*:

(30)   ZENAGA (Berber, Afro-Asiatic, Mauritania) (Taine-Cheikh 2006: 123)

   a. *wär-āš-yənnih*
      NEG-3SG.DAT-say.3SG.A
      'he didn't tell him/her'

   b. *əd-š* (= [əč])
      COM-3SG
      'with him/her'

More generally, the governed terms of Adps are not always treated identically depending on whether they are nominal or pronominal. In other words, languages do not always do what is done in a language like Abkhaz (which, as a further particular feature, uses (cf. example (31b)) a tonic form of the pronoun as an apposition to the personal affix in the Adp-phrase):

(31)   ABKHAZ (North-West Caucasian, Georgia) (Hewitt 1979: 103)

   a. *a-jəyas   a-q'nə̀*
      DEF-river 3SG-at
      'at the river'

b. *sarà   s-q'ənt°'*
PRN.1SG 1SG-from
'from me'

In many languages, as opposed to Abkhaz, Adps do not exhibit the same behaviour with pronouns as with nouns. Pronouns may trigger an Adp stem-initial change or take a special form: "with me" = Chipewyan (Athapaskan) *sə-xłł* me-with → *sał*, Spanish *conmigo*, Portuguese *comigo*. Other cases are found. In most Berber dialects a set of Prs, while compatible with other pronouns, cannot govern interrogatives (cf. Bentolila 1981: 213–221 for Aït Seghrouchen). Another case is Paamese, which does not repeat 3rd person marking with a governed term which is a noun, even though it marks 1st and 2nd persons as suffixes to Prs. This is shown by (32):

(32)   PAAMESE (Oceanic, Eastern Malayo-Polynesian, Austronesian, Vanuatu)
(Crowley 1982: 182)
a. *kai   selūs   min tāta*
3SG 3SG.speak to   father
'he spoke to father'
b. *kai   sān   lēta   min-nau*
3SG 3SG.send letter to-1SG
'he sent me a letter'

Person-marking in governed terms may also depend on other parameters (cf. Bakker 2005: 199). Thus, (33) shows that in Kiribati person-marking occurs only on animate referents of governed terms, and (34) that in Burushaski the deciding criterion is the Adp itself, the Po *pači* requiring a prefixed person marker, while the Po *gʌnɛ* does not:

(33)   KIRIBATI (Oceanic, Eastern Malayo-Polynesian, Austronesian, Kiribati)
(Groves *et al.* 1985: 65)
a. *nakon taian nii*
to   ART   coconut.trees
'to the coconut trees'

b. *nako-ia mooa*
to-3PL   chickens
'to the chickens'

(34)   BURUSHASKI (isolate, Pakistan) (Lorimer 1935: 96–7)
a. *ja   a'-pači   huru't*
1SG 1SG-with stay
'stay with me'

   b. *ja   gʌnɛ*
      1SG.GEN for
      'for my sake'

3.3.3.2 *Adps and classifiers*   Some languages have Adps which seem to also
have the features of classifiers. I am not referring here to the Bantu locative
morphemes, often treated by Bantuists as classifiers, which I have called
chorophorics (cf. Section 2.4.2.4). An interesting example of what I mean is
Palikur, as shown by example (13) in this chapter, reproduced here, as (35), for
ease of reference:

(35)   PALIKUR (Northern Arawakan, Arawakan, Brazil) (Aikhenvald 1999: 97)
       a. *eg ka-annipwi-yo   was-madka*
          3F ATTR-work-DUR.F field-in.FLAT
          'she worked in the field'

       b. *wis-uh   pes   amew-e   ay-ta-re*
          1PL-EXCL come.out sneak.up-COMPL there-DIR-AN
          a-madka   in   gi-was-ra-kis
          3M-in.FLAT DEM.M 3M-field-POSS.PL
          'we went out stealthily there across their field'

The word *madka* (which, as stated in Section 3.2.2.2, is a Po in both (35a) and
(35b) even though the existence of two possible positions reflects a distinction
between two meanings), both points to a place, since it means "in", and
indicates that this place is a flat space. Aikhenvald and Green (1998: 456–8)
say that *madka* and similar items in Palikur and other Northern Arawakan
languages "function as locative adpositions". In another work Aikhenvald
(2000: 172) writes that such items are classificatory Adps. Such a character-
ization seems to be to the point, since *madka* and similar items mark words
like *was* in (35a) both as adverbial locative complements and as having a
specific shape if compared with other classifiable objects. However, Aikhen-
vald and Green (1998) discuss these items in the section "Locative classifiers".
There is at least one reason to reject the treatment of these words as classifiers:
they are not used in contexts other than as adverbial complements taking the
form of Adp-phrases, unlike classifiers, which appear freely inside noun-
phrases functioning as subjects.

3.3.3.3 *Adps and articles*   Noun determiners can be considered to belong to a
grammaticalization path along which we find, first, demonstratives, which may
develop into definite articles, which in turn may develop further into specific,
also called non-generic, articles, which may themselves become in turn noun

markers; the second, third, and last one of these three post-demonstrative stages are stages I, II, and III respectively (cf. Greenberg 1978). There may be restrictions on the use of these noun determiners when they appear in Adp-phrases. These restrictions in Adp-phrases do not, in general, pertain to demonstratives or noun markers, nor, let it be recalled, to quantifiers and indefinite articles. They pertain only to definite or specific articles. As can be surmised, the study of these restrictions is relevant only for nouns that can be used either with or without an article, not for those which may be used with an article in any syntactic environment. Thus, for example, *school*, since it may always be used without an article when it refers to the institution rather than to the building, as shown by (36a–c), is not considered here, unlike *bus*, whose uses imply a choice between presence and absence of an article, as shown by (36d–e):

(36)   ENGLISH (Himmelmann 1998: 324)
       a.   *go to school*
       b.   *quit school*
       c.   *school starts again in September*
       d.   *she came by *the bus*
       e.   *I take *(the) bus*

Having thus noted that the constraints on articles in Adp-phrases do not apply to all types of governed term, let us now examine what type of Adp is at stake here. According to Himmelmann (1998: 323), "only primary Adps interact with articles". We can start with this statement, although recalling that, as stressed in Section 2.3.1.2, the distinction between primary and secondary Adps is not always an easy tool to work with. If we agree, though, to use the concept of primary Adps, we will say that in a number of languages,

among the two kinds of grammaticized D-elements [noun determiners on the grammaticalization path mentioned above] it is only the less strongly grammaticized specific article which interacts with primary prepositions.   (Himmelmann 1998: 326)

On the contrary, very strongly grammaticized elements, like noun class markers, do not interact with primary Adps.

Many languages provide examples of this situation. As expected, the strength of the constraint which produces an exclusion relationship between Adps and specific articles depends on each language. Thus, most Germanic languages, although they are relevant examples of the interaction between Adps and article use in noun-phrases governed by the latter, do not impose strong constraints in this respect. The article is by preference left out in adverbial expressions such as *on foot*, German *zu Hause*, Afrikaans *te voet*

"on foot", in abstract Adp-phrases such as *in Wirklichkeit* "in reality" (but cf. Swedish *i verkligheten* "in reality", with postposed article *-en*) and in English Adp-phrases referring to location and time, like *in town, to work, in winter, at dawn*. German and Swedish equivalents are, respectively, with the article unlike English, *in der Stadt, zur Arbeit, im Winter, im Morgengrauen* and *i staden, till arbetet, på vintern, i gryningen* (cf. Himmelmann 1998: 330–1).

Tagalog stands at the opposite end. In this language, while the elements located at the starting point of the grammaticalization path, that is demonstratives, may be freely used with all kinds of Adps as in all languages investigated so far (cf. Himmelmann 1998), the morpheme *ang*, granting that we consider it as a specific article rather than as a topic marker or a nominative case marker (cf. arguments given in Himmelmann 1991: 8–16), never co-occurs with *sa*.

Balkan languages are in between. In Romanian, a well-described language in this respect, and in Albanian, things are less straightforward. As shown by (37a), in Romanian, unmodified nouns, unlike modified nouns as in (37b), are not marked for definiteness when governed by a Pr, except if this Pr is *cu* as in (37c), or *pe* in its use as object marker as in (37d), not as locative marker as in (37e):

(37)   ROMANIAN (Romance, Indo-European, Romania) (Himmelmann 1998: 328)

    a. *Radu a   intrat   în casă*
       Radu PFT.3SG enter.PST.PART in house.F.SG.NOM/ACC
       'Radu has entered the house'

    b. *Radu a   intrat   în*
       Radu PFT.3SG enter.PST.PART in
       casa   mare
       house.DEF.F.SG.NOM/ACC big.SG
       [the form ending in *-a* instead of *-ă* includes the article]
       'Radu has entered the big house'

    c. *apucat-ul   cu   mîna*
       seize.SUP-DEF.M.SG with hand.DEF.F.SG.NOM/ACC
       'seizing with the hand'

    d. *o   ascultam   pe   mama*
       3SG.F.ACC hear.1SG.IF OMK mother.DEF.F.SG.NOM/ACC
       'I listened to my mother'

    e. *Ion stă   pe   masă*
       Ion stand.3SGP.PRS on   table.
       'Ion is standing on the table'

In another language of the Balkanic Sprachbund, Albanian, the use of the article in Adp-phrases is also limited, but not as widely as in Romanian: admittedly, *në* "in, at", *mbi* "on", *nën* "under", *përmbi* "over" do not allow unmodified nouns to occur with the definite article, but this applies only when they are singular, *nëpër* "through" being the only Pr to which the restriction also applies when the nouns are plural. No hurdle to the use of the definite article exists for terms governed by the Prs *me* "with", *më* "at, on", *ndër* "under; between", *pa* "without", *për* "for", and in addition to that, Albanian has a very special characteristic, when compared to all other languages examined in this section: two of its Prs, *nga* "from, out of" and *tek* "at, to", *require* the use of the definite article, unless their governed term is explicitly marked as indefinite; these Prs assign nominative case to their governed term, unlike all other Pr's, which assign either accusative, or an oblique case, such as ablative (Buchholz and Fiedler 1987: 375–84).

The point that is important to stress after this examination of various languages is that the constraints on article use in Adp-phrases involve only certain types of governed terms and certain types of Adps. As far as governed terms are concerned, weakly grammaticalized as well as strongly grammaticalized members on the grammaticalization path of noun determiners mentioned at the beginning of the present section, namely demonstratives and noun markers respectively, are not precluded by Adps: only those members on this path that are at the intermediate stage, namely definite articles, are often precluded. The same interesting hierarchy is observed as far as Adps themselves are concerned: elements which are not yet at the intermediate stage of the Adp-producing grammaticalization process, namely both relational nouns and Compound Adps which are still clearly analysable, do not preclude articles on the governed term. A confirmation of the tendency by which only Adps at the intermediate stages of their grammaticalization interact with definite articles comes from Romanian and Albanian, in which, as seen above, Adps which do not preclude definite articles on their governed term always include weakly grammaticalized Adps, like those marking the comitative/instrumentive semantic functions (cf. Himmelmann 1998: 337).

3.3.3.4 *Adp "incorporation"*   We have seen in Sections 2.4.1.2 and 2.4.1.3.c that there are arguments against treating as "incorporated Adps" certain morphemes belonging to VPs and pointing to nominal elements outside these VPs. It is not advisable, either, to treat as Adps certain elements which are constituent parts of complex verbs, and in which one can identify a former Adp, which has become fused into the verb. The phenomenon I am referring to here is not the same as the fairly original structure found in various North-American languages and

exemplified by Klamath, which exhibits (cf. 2.4.1.3.b) associations of a classifying prefix and a locative-directive stem, functioning together as a predicate, and which cannot be considered as an incorporated Adp-phrase: Klamath has no Adp. What I am referring to here is a kind of incorporation of which Tunisian Arabic and Chipewyan (Athapaskan) are examples:

(38)   a. TUNISIAN ARABIC (Semitic, Afro-Asiatic, Tunisia) (Kazimirski 1860, 1: 360)
ǧi:b   *l-i*   *l-məftah*
bring.IMP to-1SG ART-key
'bring me the key!'
b. CHIPEWYAN (Athapaskan, Canada) (Cook 2004: 212)
be   *k'e-ná-s-thər*
3SG on-DUR-1SG-stay
'I am fighting him'

In (38a) *ǧi:* "come" + *b(i)* "with" yield "bring". In 38(b) Po *k'e* "on" + *thər* "stay" yield Tr "fight".[1]

ǧi:b is the imperative of the verb *ǧa:b* (PFT)~*yiǧi:b* (IPFT), which means "bring" and is inflected like any verb in the language, a kind of lexicalization which tends to obscure the etymology: in fact, this language expresses the notion of "bringing" through an association of a verb "come" with a suffix formerly identical with the Pr *bi* "with".

3.3.3.5 *Morphological changes of Adps depending on the type, nature, or structure of their governed term*   We have seen in Section 3.3.3.1 that Adps may, in certain languages, trigger changes in the form of their governed term. Conversely, there are cases in which Adps themselves change due to combination with certain governed terms. In many languages, especially Indo-European, Afro-Asiatic, and Austronesian, we simply have to do with allomorphs whose conditioning is essentially phonetic and morphophonemic, and whose detailed study would require much space. I will therefore examine here some characteristic situations: Adp change triggered by proper name government (3.3.3.5.a), fusion between Adp and article (3.3.3.5.b), results of the combination with third person singular pronouns (3.3.3.5.c). All these situations confirm that the relationship

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[1] It is interesting to note, in a typological perspective, the important difference between languages in the strategies used to express the notion of "bringing": unlike Arabic in (38a) a serializing language like Thai uses a structure with no less than three successive verbs *ao maa hây* "take come give". In (38b) syntactic (question and answer) and semantic tests show the difference between idiomatic Po-incorporation and the structure with *k'e* "on".

between Adps and their governed terms is a very tight one, both materially and semantically.

3.3.3.5.a **Adp change triggered by proper name government** Languages may mark in the morphology the difference between proper names and others. Tagalog is a case in point. In this language the Pr *sa* is used with any kind of governed term, except those referring to human proper names. These require, instead of *sa*, the Pr *kay*. Note that the distinction also applies to topic and non-topic markers, namely *ang* and *ng* (= [nəng]), whose human proper name equivalents are, respectively, *si* and *ni*. Similarly, in the plural, Tagalog does not use the prefix *mga-*, used for all nouns other than human proper names, but a *-na* suffix, in combination with which *kay-* becomes *ki-*: thus, instead of **mga-sa*, we have in Tagalog *kina* , just as the plurals of *si* and *ni* are *sina* and *nina* respectively (cf. Schachter and Otanes 1972: 93, 113).

3.3.3.5.b **Morphological fusion between Adps and articles** We have studied in Section 3.3.3.3 the factors conditioning the use of articles in Adp-phrases. But there are also many cases of morphological fusion between Adps and articles. Examples of this phenomenon are well described, especially in inflectional languages. The fusion is partial in Modern Greek, where *sé* "with" + *tin* (ART. F.SG), *se* + *tous* (ART.M.PL) yield, respectively, *stin* and *stus*. The fusion is also partial in classical Arabic *bil* = Pr *bi* + article *al* "with the", or Biblical Hebrew *ka* = Pr *kə* + ART *ha* "like the". The fusion is also partial in French *du* = Pr *de* + ART.M.SG *le* "of the(M.SG)", *des* = Pr *de* + ART.PL *les* "of the(PL)"; the same is true of Italian *col* = Pr *con* + ART.M.SG *il* "with the(M.SG)" or in *delle* = Pr *di* + ART.F.PL *le* "of the(F.PL)". As for Portuguese, the fusion is stronger in *pelos* = Pr *por* + ART.M.PL *os* "by the(M.PL)" than in *do* = Pr *de* + ART.M.SG *o* "of the(M.SG)", *das* = Pr *de* + ART.F.PL *as* "of the(FEM.PL)", *às* = PR *a* + ART.F.PL *as* "to the(F.PL)", *nos* = Pr *em* + ART.M.PL *os* "in the(M.PL)".

German is more complex, since, for example, *vom* in *vom Vater* "of the (M.SG) father" and *zur* in *zur Stadt* "to the(F.SG) city" are, respectively blended forms of *von* + *dem* (of + DEF.ART.M.SG.DAT) and *zu* + *der* (to + DEF.ART.F.SG.DAT); this means that *vom* and *zur* are, in fact, Complex Adps, in which the erosion of the root of the article leaves only the first two phonemes of a Pr and the dative marker as a part of its governed term, namely the article, to which the Pr is attached, although the governed term is the entire noun-phrase *dem Vater* or *der Stadt*. A striking fact in most of these languages is that it is, at least generally, the most desemanticized, hence the most grammaticalized and the oldest Adps, which fuse with governed terms.

In French *au* "to the(M.SG)", no phoneme of the fused parts (Pr *à* + ART *le*) reappears in the resulting form: *au* is an outcome of a phonetic evolution from [al], originally from Latin *a(d)(i)l(lum)*, to [o] via the successive historical stages [adl], [aL]), [aw]. Barring exceptional cases like this one, it is interesting to notice that in inflectional languages like those of the Romance group, the degree of fusion is stronger between case suffixes and articles than between Adps and articles. This is shown, for example, by the genitive singular of feminine nouns in Romanian, as in *decadenţa artei* "the decadence of art" or *istoria literaturii* "the history of literature". It remains the case that these various types of morphological fusion between Adps and articles have in common that they are explainable. The likeliest explanation is that articles are mostly unstressed, and often monosyllabic, words. They represent, beside article omission in Adp-phrases, another way in which the grammatical components of noun-phrases functioning as governed terms interact with Adps.

Some authors argue that rather than combinations of Adps and articles, we have here Adps inflected for number and gender. This treatment, proposed for Italian by Napoli and Nevis (1987), does not seem to add much to an analysis like that proposed here. It is, at any rate, less compelling than the one other authors apply to Celtic Prs as inflected for person (cf. Section 3.4.6.1).

3.3.3.5.c Morphological fusion between Adps and third person pronouns   A striking illustration of this phenomenon, probably fostered by the frequency of the third person as a governed term in non-dialogical uses, is provided by some Oceanic languages, for example Fijian. In this language the directional marker *vēi*, the comitative marker *kēi* and the inessive or cause markers *māi/e/i* are fused with the third person singular, the resultant forms being, respectively, *vuā*, *kaya* and *kina*, as in

(39)   FIJIAN (Oceanic, Eastern Malayo-Polynesian, Austronesian, Fiji)
       (Schütz 1985: 350–4)
       a. *drāū via-vosa   vuā?*
          2D   DES-talk   to.3SG
          'do you(dual) want to talk to him?'

       b. *kēīrāū na   lako kaya   nimataka*
          1D   FUT   go   with.3SG tomorrow
          'he and I will go tomorrow'

       c. *e   dāū coko kina   na   ika lelevu*
          3SG   HAB catch in.3SG ART   fish big
          'big fish are caught in it'

    d. *ta-sova sara **kina**   na sucu*
       it-spill INT because.of.3SG DEF milk
       'because of it, the milk was spilled'

Other Oceanic languages have portmanteau forms of that kind before all person markers. Thus, in Kwamera the proximate locative Pr *ia*, in combination with 1st, 2nd, and 3rd person markers, yields *irak*, *iram*, and *ira* respectively (Lindstrom and Lynch 1994: 14).

3.3.3.6 *Morphological change of Adps triggered by the nature of the thing referred to by a noun in the sentence*   This situation, which is uncommon, is illustrated by languages in which certain Adps have different forms depending on the type of one of the nouns in the sentence.The type in question here is the semantic type: for instance, certain verbs, or the class of the referent of this noun. An example is Tongan, where the Pr meaning "for, for the sake of, for the benefit of" can take two different forms depending on whether the thing which is intended belongs to the *'e*-class or to the *ho*-class. The form of the Pr is *ma'a* in the first case and *mo'o* in the second. The *'e* class contains nouns like *puha* "box", *me'a* "thing", *mango* "mango", *palé* "reward"; the *ho*-class contains nouns like *vaka* "boat", *tauveli* (an English loanword) "towel", *'api* "home, yard", etc.

(40)   TONGAN (Oceanic, Eastern Malayo-Polynesian, Austronesian, Tonga)
      (Shumway 1971: 501)
     a. *koe puha lole   eni   **ma'a** Sione*
        is   box   candy DEM for   John
        'this box of candy is for John'

     b. *koe ki'i vaka eni   **mo'o** Sione*
        is   little boat DEM for   John
        'this little boat is for John'

3.3.3.7 *Morphological change of Adps triggered by several factors together*   This is the widespread situation in which two or more allomorphs of an Adp are triggered by a conspiracy of various factors. One is stylistic, as illustrated by the co-existence of two English Prs *amongst* and *among*, of which the former seems to be an older, more literary, form of the latter; other members of apparently synonymic pairs are in fact different, *besides* and *beside* for example (cf. Section 5.3.3.4.a).

   I will only give here one illustration of allomorphy, taken from Russian. Several Russian Prs have two, sometimes three, allomorphs: *s~so* "with", *v~vo*

"in", *k~ko* "towards", *ob~obo* "around, about". The triggering factors are (Mel'čuk 2006: 395–6):

- the nature of the initial consonant cluster, when such a cluster appears in the governed term that hosts the Pr as a clitic, e.g. *s xramom* "with the temple", but *so žricoj* "with a priestess";
- the mono- or polysyllabic structure of the governed term, e.g. *v lživosti* "in deception", but *vo lži* "in [the] lie";
- the nominal vs. pronominal nature of the governed term, e.g. *k mneniju* "to opinion", but *ko mne* "to me".

3.4 Adps and the main lexical categories: verbs and nouns

In this section it will be shown that Adps, because they are an important category on a par with verbs and nouns (3.4.1), provide, being midway between them, an interesting clue for a theory of the category and its cognitive implications (3.4.2). After briefly recalling the role of Adps in a theory of grammaticalization (3.4.3), I will study the relationships between Adps and verbs (3.4.4) and those between Adps and nouns (3.4.5).

3.4.1 *Adps as an important category, on a par with verbs and nouns. X-bar theory, cognitive grammar*

The importance of position, which has appeared in Section 2.3, also appears from another point of view, that of the link between Adps and other parts of speech. While Adps are considered to be simple markers of subordinate elements in most versions of European and American structuralism as well as in contemporary models such as Case Grammars, they are presented as a major category, on a par with the main lexematic categories, namely verbs, nouns, and adjectives, in one of the most influential, and still most widespread, of the successive forms taken by Transformational Generative Grammar, namely X-bar theory. The present study does not follow any of the formal models of that kind which flourished between 1965 and 1985. It cannot, in particular, agree with the explicit limitation of the scope by the effect of which Prs only are taken into account. Many linguists would agree that this limitation results from the English-centred perspective which has dominated the linguistic scene before typology gradually took on increasing importance. But even with these reserves and provisos in mind, it is interesting to look at the way in which the four categories held to be the primary ones are defined, using an analysis in terms of a feature system which

assigns them + or − values with respect to verbal and nominal statuses (cf. Chomsky 1970; Jackendoff 1973):

(41)   FEATURE DEFINITION OF THE MAIN FOUR LANGUAGE CATEGORIES
- N : [+ N − V]
- V : [+ V − N]
- Adj : [+ V + N]
- Pr : [− V − N]

(41) does not mention Adps in general, but only Prs. However, what it says of Prs can be applied to all types of Adps. It shows that Adps, while they have no feature in common with adjectives, have a feature in common with both verbs and nouns, that is, respectively, −N and −V. This is also claimed, in the same transformational generative framework, by such authors as Shopen, who writes:

> The extent to which prepositions are propositional heads in their own right, governing a rich variety of structures divergent in both form and meaning, is not generally appreciated. An interesting case can be made for the claim that the [...] rule generating prepositional phrases is similar to the one that generates verb phrases.
>
> (Shopen 1972: 100)

Among more recent theories, Adps are not always recognized as an important part of speech. For instance, Hengelveld's (1992) Functional grammar approach defines four parts of speech: verb, noun, adjective, and adverb, but gives no clue to the status which Adps might have in this framework. On the other hand, there are theoretical perspectives that can provide some suggestions. Thus, Adps turn out to be midway between verbs and nouns, just as they are in the X-bar theory approach, if we consider Langacker's Cognitive grammar, which tackles the uneasy task of proposing notional descriptions of basic grammatical categories. According to this view (Langacker 1987: 71–89), the sets of entities designated by nouns are summarily, and therefore atemporally, scanned as things, that is as unitary wholes, whereas the apprehension of the sets of entities designated by verbs follows an opposite cognitive process: these entities are sequentially, and therefore temporally, scanned, not as things, but as processes. Croft's (2001: 65–107,) "referring expressions" and "predicative expressions", used in the framework of his Radical construction grammar, proposing a "universal-typological theory of parts of speech", are "broadly compatible" (Croft 2001: 104) with Langacker's things and processes respectively. Moreover, according to Langacker (1987: 68–70), verbs designate sets of interconnected entities, whose interconnections they sketch. This happens to be what is done not only by adjectives, but also by Adps. Nouns, on the other hand, do not sketch the interconnections between

the entities they designate. The interesting light this model sheds on the problem of the nature of Adps can be summed up thus: Adps designate relational entities like verbs, but at the same time, like nouns, they scan these entities summarily as atemporal ones (although this calls for some qualification, given that Adps may be inflected for tense (cf. Section 3.4.6.1)). Therefore, Adps are, typically, intermediate between nouns and verbs. To that extent, Adps are very interesting for a theory of the essence of a grammar category, as will appear in the following section.

3.4.2 *Adps as a clue to a theory of the category and its cognitive implications*

Section 2.2.2, which may have appeared as a lengthy discussion, was vital to showing that distinguishing Adps from case affixes requires a long set of criteria of all kinds. This reflects in a clear way the difficulty of drawing the boundaries of a category which is midway in many grammaticalization paths. The very fact of defining what is and is not an analytical category tells us much about the nature of that category. In Section 3.3.3.3 it has appeared that unlike units already involved in the gradual grammaticalization path of Adps, weakly grammaticalized members on this path, namely those that are not yet at the intermediate stage of the adposition-producing process, like relational nouns and clearly analysable Compound Adps, do not preclude articles on the governed term. Section 3.4.1 has just shown that Adps are also at a midway point between verbs and nouns, sharing properties with each one of these lexical categories, both if examined in the X-bar theory framework and if compared with verbs and nouns from the Cognitive grammar point of view. Sections 3.4.4 and 3.4.5 will show that verb- and noun-derived Adps are involved in a long and complex individualization process.

Adps are therefore an ideal field of research for linguists who wish to establish the theoretical bases of a theory of the category in linguistics, and especially in typology. Adps are neither a fuzzy set in Lakoff's (1972) and logicians' sense, nor a point between adjectives and "adjectival nouns" on the hierarchy that Ross (1972) defines as a squish. They occupy a special position within a topological category space, since, to express things according to traditional Chinese grammar (cf. Hagège 1975: 23–5), they are, at the same time, both empty words (grammatical tools) and full words (lexeme-like words or lexemoids).

This suggests that the human mind, in the language construction process, does not only meet the need for words with a cognitive content ("full words") and tools to link them together and indicate the functions they serve in relationship to one another ("empty" words). The human mind is also able to imagine and make words that are both "empty" tools and "full" lexical units. Adps are exactly that. It will appear in Sections 5.2.1 and 6.2.2 that Adps

are best characterized as a morpholexical category. This two-fold nature has far-reaching consequences and important cognitive implications. The human mind has the capacity of giving names to things and to processes, hence the quasi-universal existence of nouns and verbs. But the relationship it establishes between these names has itself, at the same time, a reality. Humans have built logical systems with relational elements which are purely relational. But they have also built languages, in which there are no purely relational elements. This is what the study of Adps reveals.

Given this very special situation, Adps may be expected to have important synchronic and diachronic relationships with both verbs and nouns. The following sections will make it clear that such is indeed the case. It must be kept in mind, however, that the assignment of elements with a verbal or nominal background to Adps has not always been accepted, in classical and in modern times, by all linguists. I will come back to this problem in the conclusion to Section 3.4.5: Section 3.4.5.3.

3.4.3 *Adps and grammaticalization*

In many languages, a number of Adps are historically derived from verbs and/ or nouns by the process of grammaticalization, according to the term introduced by Meillet (1912). As shown in the works written on this topic in the past forty years (Hagège 1975; Givón 1979; Lehmann 1995; Ramat and Hopper 1998 among others), grammaticalization mostly goes in one direction, namely from concrete to abstract meanings, and involves semantic weakening as well as pragmatic strengthening. Grammaticalization is also gradual. Moreover, new semantic functions (cf. Section 5.3.1) do not necessarily eliminate old ones, but co-exist with them for long periods of time. Grammaticalization also involves morphological change, including attrition. Finally, it is not pre-planned and does not occur in a quite predictable way. All these features characterize the two grammaticalization types which will be studied in Sections 3.4.4 and 3.4.5.

3.4.4 *Adps and verbs*

This section will examine two verbal sources of Adps: verbs associated with other verbs in the framework of serial structures (3.4.4.1), and secondary predicates (3.4.4.2).

3.4.4.1 *Serial verbal structures as the framework of the grammaticalization of non-subordinate verbs into Adps in many languages*

3.4.4.1.a **The serial framework** Adps share an important property with transitive verbs: like them, they are complement-taking, the complement

being what I call the governed term. Furthermore, like transitive verbs, Adps set up a syntactic relationship between their complement and the rest of the sentence. These common points between Adps and transitive verbs, in sentences where the latter fulfil the predicative function, give Adps a central importance in languages where Adps are a developed class. It is therefore to be expected that crosslinguistically, although of course not in all languages, the grammaticalization of verbs will be one of the sources of Adps. This process has given rise to many studies, among which are Hagège (1975, 1993, 2001), Heine *et al.* (1991), Hopper and Traugott (1993), Lehmann (1993), Traugott and Heine (1991), and Traugott and König (1991).

It seems to be well established now that the syntactic framework in which verbs may, in certain languages, grammaticalize into Adps is the one constituted by serial structures, found in serializing languages, and in which two verbs appear in succession with the same subject, one of them at least being transitive. This means that in non-serializing languages Adps will have other sources, such as nouns, adverbs and/or, in Finnic languages for instance, lexicalized denominal infinite verbs. As for the conditions for the production of Adps in serializing languages, they are created by the very context of verbal series, with either Prs or Pos being likely to appear, depending on whether the language is VO or OV, as shown in (42) (from Hagège 1982: 57):

(42)   Verbs in serial structures and Adps derived from them
    a. N + V1 $\pm$ N1 + V2 $\pm$ N2 (mostly VO languages): V1 or V2 $\rightarrow$ Pr
    b. N $\pm$ N1 + V1 $\pm$ N2 + V2 (mostly OV languages): V1 or V2 $\rightarrow$ Po

The situations represented by (42) are the most frequent ones: since in VO languages transitive verbs precede their nominal object, the Adp resulting from the grammaticalization of a verb in this serializing framework will be a Pr; and since OV languages exhibit the opposite word order, the result of grammaticalization in this case will be a Po. In addition to having the same subject, the two verbs in a series are associated by another sign of cohesion, namely the non-repetition, in many cases, of tense, aspect, or mood morphemes, attached to the element of the verbal series which remains a verb, but not, in general, to the element which yields an Adp. An observation is also in order here: that serial structures may be the framework in which Adps develop does not mean that serial verbs are directly by themselves "among the competing case-marking systems of various types", as is claimed by Kilby (1983: 55). This characterization

TABLE 3.1. The verbs that are most frequently grammaticalized into Adps (column A), and the Adps derived from them (column B)

A		B
a. 'to be (located) in, at'	→	'in, at'
'to front'	→	'in front of'
b. 'to go, move towards, head for'	→	'to, towards; for'
'to reach', 'to touch on'	→	'as far as, up to, until'
'to follow'	→	'along with'
'to get out from', 'to leave'	→	'from'
'to pass by'	→	'past'
'to go beyond, pass, surpass'	→	'than'
c. 'to refer to'	→	'as for'
'to look like'	→	'like'
'to conform to'	→	'according to'
'to compare'	→	'as; than'
d. 'to use'	→	'by means of'
'to rule out'	→	'without'
'to oppose'	→	'against'
'to give'	→	'to'
e. 'to treat or consider as'	→	'as'
'to take'	→	'by means of'
	→	P marker

applies only to the Adps derived from one of the verbs in serial structures, rather than to serial verbs themselves.

3.4.4.1.b **The grammaticalization process**   The relationship between Adps and verbs in languages where one of the verbs in a serial structure undergoes a process of grammaticalization (cf. Hagège 1993: 211, 2001: 1619–21) is shown in Table 3.1.

It appears from Table 3.1 that among verbs which (given their broad and general meaning) are fairly versatile and particularly frequent and thus have a tendency to grammaticalize, only a few are verbs with a static meaning as in the a. category. Most of them are human-oriented and generally non static. So are, therefore, the Adps derived from these verbs, as seen in categories b.–d. In b., they indicate various types of concrete and abstract movements. This is shown by (43), which illustrates (42b), namely OV languages, where one of the verbs in series yields a Po. It is also shown by (44), which illustrates (42a), VO languages, in which one of the verbs in series yields a Pr, a process illustrated

by many South-East Asian SVO languages as well as by languages belonging to other areas and having another word order for S, like Malagasy (VOS):

(43)   Ute (Numic, Uto-Aztecan, United States) (Givón 1979: 218)

    mamáci piná   kwa pụ
    woman behind go   PST
    '(he) went behind the woman'

(44)   Mandarin Chinese (Sino-Tibetan, China) (Hagège 1975: 88)

    tā   cháo   wǒ pǎo le
    3SG towards 1SG run PST
    'he rushed towards me'

In a similar way, Yoruba *sí*, Khmer *ta'l*, both of them allative Adps, are derived from a verb meaning "to reach", and Ewe *tó* "past" is derived from a verb meaning "to pass by". In category c. in Table 3.1, the Adps denote reference and comparison. I will come back to the notions of "going beyond" and "comparing" in Section 5.3.3.4.d; both yield standard markers of the comparative semantic field. In category d., we have verbs with a dynamic meaning, that are related to some of the main kinds of concrete or abstract actions of one entity, or human being, upon another, as in Ijo, an OV language, that is one in which the grammaticalization of one of the serial verbs yields a Po:

(45)   Ijo (Ijoid, Niger-Congo, Nigeria) (Williamson 1965)
    dúma tun-nì   a   píri
    song   sing-IMP 3SG (give→) for
    'sing a song for her!'

Such attributive or benefactive Adps derived from a verb meaning "to give" are found in many other languages, for instance Chinese *gěi*, Khmer *oy*, Haitian Creole *ba(y)*, Yoruba *fi*.

As far as category e. in Table 3.1 is concerned, it is well known from many languages that "to take" is especially versatile: it sometimes yields a comitative marker, as in examples (46) and (47) (in this sentence the comitative meaning is metaphoric); but more often than not, it yields an instrument marker, as will be discussed in Section 3.4.4.1.c:

(46)   Gullah (English-derived creole, south-eastern United States) (Alleyne 1980: 93)
    dɛm gain   tɛk dɛm go bak
    3PL going   *tɛk* 3PL go back
    'they are returning with them'

(47)   EWE (Kwa, Niger-Congo, Ghana, Togo) (Alleyne 1980: 168)
        é   tsɔ dɔme ɣeɣí yi afé
        3SG *tsɔ* empty belly go home
        'he went home hungry'

It should be noted that verbs involved in a grammaticalization process yield-
ing Adps may also, when they have kept their verbal status and depending on
their position in the sentence, appear as verbs in V1 or V2 of a verbal series.
Consider, for instance, example (48):

(48)   EWE (Heine and Kuteva 2006: 279)
        wó   tsɔ- n-ɛ̀   yi Kéta
        3PL take-HAB-3SG.O *yi* Keta
        'they carry him to Keta'

In this example, the verb which is grammaticalized into an Adp is V2, namely *yi*,
and not V1, namely *tsɔ*. As stated in (42a), the verb which yields a Pr in the verbal
series of VO languages may be either V1 or V2, and the same is true of V-derived
Pr in OV languages, as stated in (42b). In example (48), *yi* is an allative Adp
(Table 3.1 (b)) derived from a verb meaning "go", and means "to", whereas *tsɔ* is a
verb "take", not an Adp, unlike example (47), where *tsɔ* functions as a Pr.

3.4.4.1.c **Evidence of the adpositional status**   As shown in one of the first
book-length studies of the grammaticalization process (Hagège 1975), there
are phonetic, morphological, syntactic, and semantic phenomena that
commonly affect verbs involved in such a process. These phenomena may
constitute evidence of the fact that the latter are no longer verbs but Adps,
which does not mean, however, that the adpositional status is always certain,
as may be seen, for example, with Chinese *yòng* "to use", which has not
yielded an instrument marker (cf. Hagège 1975: 111–14). In a later study
(Hagège 1993: ch. 7; see also Lehmann 1995), details are given on various
facts, such as:

- phonological reduction by attrition and loss of phonetic elements;
- morphological reduction, which does not mean that all tense, aspect, and
  mood morphemes disappear, as shown by Mandarin Chinese, where
  several verb-derived Prs may be followed by the past tense morpheme
  le: yīnle "because of", *wèile* "for", etc. It all depends, actually, on indivi-
  dual languages: to take just one example which is in contradistinction
  with English, while Ewe verbs can be marked for habitual aspect, Ewe Prs
  which are derived from them and homophonous with them cannot be so
  marked (cf. Aboh *et al.* 2007);

- formal fusion, entailing the ban on any inserted element between the original verb and its complement;
- sequential fixation, showed by the impossibility of permuting them;
- combinatory limitedness and/or constraints on newly formed Adps when compared with their verbal source;
- increased syntactic specialization and, therefore,
- increased frequency, as well as
- semantic bleaching.

I will only dwell on four points, related, successively, to combinatory constraints, to operations such as topicalization, to semantic evolution, and to diachronic paradoxes.

Combinatory constraints as proofs that a verbal lexeme can no longer be treated as such but has become an Adp are illustrated by (49), from Maybrat:

(49)   MAYBRAT (West Papuan, Papua, Indonesia) (Dol 1999: 87, 88)
    a. *y-ae*   *Sorong*
       3SG.M-be.at Sorong
       'he is in Sorong'

    b. *ait*   *y-amo*   *m-ae*   *amah*
       3SG.M 3SG.M-go 3SG.F-at house
       'he goes home'

In (49a) *ae* is a verb "to be at", and preceded, as such, by a third person singular masculine subject prefix referring to a male individual, while in (49b), *ae*, which is the V2 in a verbal V1–V2 series, can no longer be considered as a verb, since it occurs with a third person singular feminine subject prefix, whatever the gender, number, and person of the subject. This means that it is frozen as a new unit, that is to say, the verb has been grammaticalized into an Adp. Other combinatory criteria may be cited from many languages.

The second point is related to various syntactic operations (called transformations in early transformational grammar), from which I will select only one illustration: Ewe prepositional phrases can be topicalized, whereas verbs which are homophonous with the Prs contained in these prepositional phrases cannot (cf. Aboh *et al.* 2007).

The third point is related to semantic evolution. We know that along with the words *piná* in example (43), *cháo* in (44) and *píri* in (45), Ute, Mandarin Chinese and Ijo have verbs meaning, respectively, "to follow", "to go towards", and "to give". Although it is true that there is a close relationship between these senses and those of the words which appear in the three examples in question and are

homophonous with these verbs, there are interesting phenomena which seem to point to the new semantic status of erstwhile verbs. Consider (50):

(50)   YORUBA (Defoid, Benue-Congo, Niger-Congo) (Heine and Reh 1984: 37)

    a. *mo* *fi*   *àdé*   *gé* igi
       1SG take machete cut tree
       'I cut the tree with a machete'

    b. *mo* *fi*   *ogbon*   *gé* *igi*
       1SG take cleverness cut tree
       'I cut the tree cleverly'

Granting that in (50a) there may be some hesitation as to whether *fi* should be treated as an Adp or as a verb, treating it as a verb in (50b) would imply that an abstract quality such as cleverness can be taken in hand like a concrete object. Thus, interestingly, the semantic evolution often undergone by verbs which originally mean "take" yields instrumental markers. Another such example is Ewe, in which the verb *tsɔ-* "to take" has the prehensive meaning illustrated by example (48) (with a metaphoric implication, as stated above) but also an instrumentive meaning, as in:

(51)   EWE (Westermann 1930: 131, 134)
    wó *tsɔ-a*   *agblenú* *ŋlɔ-a*   *agble*
    3PL *tsɔ*-HAB hoe   hoe-HAB field
    'one hoes a field with a hoe'

In addition to Ewe and Yoruba, other African languages, such as Igbo, Nupe (cf. Hagège 1975: 364 fn. 8), or Yatye (cf. Stahlke 1970), have also grammaticalized a verb meaning "to take" into an instrument marker. Similarly, a Dravidian language like Tamil has a Po *koṇṭu* "with", whose source is the verb *kol* "to take".

Mandarin Chinese has gone one step further. As early as the Wei dynasty (third century AD), the word *bǎ* was being used not only as a verb "to take" but also as a Pr marking an instrument. The latter use was generalized during the Tang dynasty (seventh–ninth centuries). Later, *bǎ*, undergoing a new semantic leap (cf. Xu 2006: 139 ff.), became a patient marker, as can still be illustrated in modern Mandarin Chinese by example (52):

(52)   MANDARIN CHINESE (Hagège 1975: 88, 359)
    wǒ *bǎ* *yī* *běn* *fēicháng* *jíxū*   *de*   *shū* *mǎi* *le*
    1SG PM one CL very.much urgent CONN.Adp book buy NSAM
    'I bought a book that I urgently needed'

At the last step of this process, there is no longer any use of *bǎ* as a verb in contemporary Chinese. Another, fairly intriguing, case of grammaticalization of a verb into an Adp, the Chinese comparative equative marker *yǒu*, will be studied in Section 5.3.3.4.d.

The fourth and last point concerns what I have called the Proof by Anachrony Principle (PAP) (Hagège 1993: 200–3): one may be sure that a lexeme whose grammaticalization constitutes the source of a morpheme may no longer be confused with it when both the lexeme and the morpheme can occur in the same sentence, and, what is more, in contiguity. Such a phenomenon shows that speakers, the majority of whom are unaware of the diachronic identity between the two items, treat them as two quite distinct word-types and do not care about the semantic, and hence syntactic, evolution which has grammaticalized one into the other. Example (53) is an illustration of the PAP:

(53)   MANDARIN CHINESE (Xu Dan, p.c)
       tā gěi wǒ gěi le yì běn shū
       3SG to 1SG give PST one CL book
       'he gave me a book'

In (53) the first *gěi* is an attributive Pr, and the second one is the verb "to give", from which the Pr is diachronically derived, a natural and very widespread derivation, given the semantic kinship between "to give" and the notion of attribution. Further examples, (54) and (55), also illustrate the PAP, respectively in the grammaticalization process of a noun into a complex Adp and in the field of auxiliary-formation:

(54)   ISRAELI HEBREW (Semitic, Afro-Asiatic, Israel) (Hagège 1993: 200)
       lixvod kvod   ha-rektor
       to   honour ART-rector
       'to His Honour the Rector'

(55)   HINDI (Indic, Indo-European, India) (Montaut 1991: 28)
       Râm-se   le-lo   ɔr   *Shyam-ko*
       Râm-from take-AV.AUX(IMPER) and Shyam-to
       de -do
       give-FV.AUX(IMPER)
       'take it from Ram and give it to Shyam'

In (54) *lixvod* is a compound Pr resulting from the association of the Hebrew Pr *li* "to" with *k(a)vod* "honour", namely the very nominal element that reappears in (54): the noun itself which functions here as the governed term of *lixvod*. (55) shows that Hindi can use a verb, here, successively, *le(nâ)*

"to take" and *de(nâ)* "to give", in contiguity with the auxiliary which is derived from it, that is respectively, an aversive (an aspect marker referring to a movement away from someone or something) and a favouritive (an aspect marker referring to a process occurring in favour of someone).

3.4.4.2 *Subordinate verbs as secondary predicates: another source of Adps in various languages*   A verb, instead of being one of the two components in a verbal series, can also be used as a secondary predicate or gerund, marked as such by a special morpheme, or an infinitive when existing. Such secondary predicates eventually yield an Adp, which sometimes keeps its verbal form, like *except* or *save* (both of them purely verbal forms of the exceptive function in English (cf. Section 5.3.3.4.a), but more frequently takes the form of a present or past participle or gerund in many Indo-European languages, and various secondary predicate forms. All these Adp-producing secondary predicates are often called *converba*. Such an analysis has been applied to Mongolian, which has a number of such forms, by Ramstedt, who uses this latinate terminology (1903), Buck (1955), and later by Poppe (1965: 195):

- English has *barring, concerning, considering, depending on, during, excepting, failing, following, given, notwithstanding, pending* (on this word, some detail is given hereafter and in 5.3.3.3.d), *regarding*, etc.;
- French has *attendu, (y) compris* and *non compris, durant* and *pendant*, both meaning "during", *moyennant* "through", *étant donné* "given", *eu égard à* "considering", *excepté* "except", *hormis* "except", *passé* "past; after" *supposé* "in case of", *vu* "given", *à partir de* "(starting) from", *nonobstant*, which has the same structure and the same meaning as *notwithstanding* (cf. Hagège 2004*a*) (on *notwithstanding, nonobstant,* and *durant,* cf. Sections 2.3.3 and 3.2.2.2);
- Russian possesses Prs with the present participle ending *-ja* : *blagodarja* "thanks to", *ne-smotrja-na* "despite" (lit. "not-watching-on"), *spustja* "after";
- Hungarian exhibits *-va/-ve*-marked Complex Pos *múlva* "after" (a genuine Po today since the verb *múlik* "to pass", from which it is historically derived, is not used any longer) and *nézve* (from *nézik* "to see") "given", "in view of", both governing the sublative, and a Complex Pr *kivéve* "except", also used as a Po governing the accusative, but often with no case affix on the governed term;
- Turkish has Pos built on verbs associated with gerund markers: *gör-e* (see-by) "according to", *ol(a)-arak* (be-while) "in the quality of" (cf. Section 5.3.3.4.e), *di-ye* (say-by) "in the (claimed) quality of";
- Mongolian exhibits such Pos as the terminative *xürtel* + a (variable) case affix on the preceding noun "as far as" (from *xür* "to reach" and the frequent converbal marker *-tel/-tal*;

- Japanese exhibits *-te* forms, marking concomitance: *megutte* "about", literally "turning around";
- Korean has *e tara* "in conformity with, according to", from a verb meaning "to follow";
- Georgian possesses a Po *c'inaaymdeg* "against", literally "rising in front of";
- Malagasy has *mandraka* "until", from a verb meaning "to reach".

Various arguments prove the adpositional, rather than verbal, nature of secondary predicates like these. Let us take a Mandarin Chinese example:

(56)   MANDARIN CHINESE (Sino-Tibetan) (Hagège 1975: 94)
     tā   **gēnzhe**   zhèi   shì   shòu   le   xǔduō xīluò
     3SG   (following→)after   DEM   event   undergo PST much banter
     'after that event, he underwent much banter'

gēn originally means "to follow", and *zhe* is either the progressive marker or the concomitance marker, similar to Japanese *-te* mentioned above. *gēnzhe* in (56) is one of many Mandarin Chinese morphemes ending in *-zhe*. It means, here, that the process referred to by the verb *gēn* occurs at the same time as that referred to by the main verb, *shòu*. But it is impossible to delete the part of this sentence which appears after *shì*, no matter whether *zhe* appears or not. This shows that the use of a verb *gēn* meaning "to follow" has practically disappeared in modern Chinese. Moreover, a semantic and syntactic phenomenon can be observed, that points to the new status of *gēnzhe* as an Adp: the person referred to in (56) by *tā* "(s)he" does not "follow the event", as would be the case if *tā* were the subject of *gēnzhe*. What we have here is not a succession of two verbs with the same subject, but a sentence with one predicate and one adverbial complement. The same can be said of (57):

(57)   *considering his situation, he should not work so much.*

The degree of grammaticalization of such verb-derived markers into *bona fide* Adps varies with each language and, within one language, from one morpheme to another. For example, while one can treat *pending* as a verbal participle with a predicative function in contexts like *other patents pending* (read on a description of a commercial product), some will prefer to treat it as a Pr in uses like that illustrated by example (49) in Section 5.3.3.3.d. Similarly, I would prefer to treat *failing* as a Pr in

(58)   *a simple enquiry addressed to the nearest policeman, or **failing** him, to any sane person* (Jespersen 1909–49, V: 51).

Other Adps coming from secondary predicates have more specific forms. In Swahili, for instance, the Pr *kutoka* "from" is the result of the grammaticalization of an infinitive meaning "to get out", located in position V2 in example (59):

(59)   SWAHILI (Racine-Issa 1998: 119)
         *meli   ya   abiria   i-me-ku-ja   **kutoka** *Zanzibar*
         boat   LM   passenger   3SG.CL9-RES-INF-come   from   Zanzibar
         'the traveller boat has arrived from Zanzibar'

Another example is Tariana, illustrated in (60):

(60)   TARIANA (Aikhenvald 2003: 225)
         *diha i-**ruku-ita-ka** alia-pidana kaidoko*
         ART INDEF-go.down-CAUS-SUB exist-REM.PST.REP beach
         'near it (their house), there was a beach'

The Po *rukuitaka* can be analysed, as shown by the gloss, into an intransitive verb *ruku* "go down" causativized by the causativizer *ita* (in fact the association of two causativizers *i* + *ta*, which strengthen each other and yield an intensive causative meaning: cf. Aikhenvald 2003: 272–3), and then followed by the subordinating morpheme *ka*, so that *i-rukuitaka* means, etymologically, "by making (it) go down to it", which is interpreted in this language as a way to express the notion "near".

As for the semantic fields to which secondary predicates yielding Adps belong, it may be useful to recall what they are in a language like English. According to König and Kortmann,

deverbal prepositions in English seem to be derived from three major semantic domains: a. time/motion: *during, pending, following* (*enduring, lasting, continuing*), *ago,* [...], *past*; b. exception: *bar, barring, except, excepted, excepting, excluded, excluding, omitting, save, not counting,* (OE *outnomen, outtaken, bating, abating*); c. topic/perspective: *concerning, considering, pertaining to, regarding, respecting, touching*. What these three groups, the last two in particular, show is that deverbal prepositions tend to develop where primary prepositions are not available. In English there are no primary Prs available that express a restriction on a quantifier or a perspective of a statement. So, if there is a functional motivation behind the development of a deverbal preposition in English, it could be seen in problem-solving, i.e. in conceptualization by expressing one thing in terms of another.   (König and Kortmann 1991: 120)

Among various types of subordinate verbs used as secondary predicates and becoming sources of Adps, there are, besides participles or gerunds, some frozen verbs, like the Romance equivalents of the English Po *ago*, namely those coming from the third person singular present of the verb meaning

"have": French Compound Pr *il y a* (cf. Section 5.3.3.3.d) and Portuguese Pr *há*, and those coming from the third person singular present of the verb meaning "do"—the Spanish Pr *hace*, the Italian Po *fa* , the Haitian Creole Pr *fè* (this language also uses another Pr, *gin*, with the meaning "ago").

In Section 3.4.4 I proposed various arguments, and gave a number of examples, in order to show that Adps whose historical background is a verb in the framework of a verbal series, or a verb functioning as a secondary predicate in a sentence, can be considered to be genuine Adps, even though they keep some traces of their verbal origin.

3.4.5 *Adps and nouns*

I will here present noun-derived Adps (3.4.5.1), their links with relational nouns (3.4.5.2), and concluding remarks (3.4.5.3).

3.4.5.1 The frequent grammaticalization of relational nouns into Adps   Just as the grammaticalization of verbs is, in many languages, one of the sources of Adps, the grammaticalization of nouns is also, in a number of languages, a source of Adps. The framework here is a noun phrase, in which one nominal element is the head, and the other is the dependent. The head refers, in general, to a body part like foot, head, belly, back, etc., a relational object part like behind, front, centre, etc. a portion of space, like side, sky, ground, north, south, etc., or an abstract notion like thing, affair, word, etc. The dependent indicates an entity, human or non-human, and reference is made to something having a relationship with this entity. Since what is at stake is the characterization of this entity with respect to the predicate of the sentence, and since body parts are located in space just like portions of space themselves, it appears that the process of grammaticalization will apply to the head of the noun-phrase and that at the culmination of this process, the head will yield a spatial Adp. And just as Adps with a verbal background are Prs or Pos depending on whether the verb from which they are derived precedes or follows its complement, in the same way, Adps with a nominal background will be Prs or Pos depending on whether the head noun from which they are derived precedes the dependent noun, as is commonly the case in VO languages, or follows it, as is commonly the case in OV languages. (61) summarizes this situation:

(61)   ADPS DERIVED FROM THE HEAD OF [head+dependent] OR [dependent + head] NOUN-PHRASES
a.   noun-phrase = head + dependent (mostly VO languages): head → Pr
b.   noun-phrase = dependent + head (mostly OV languages): head → Po

Examples of VO languages with Prs derived from nouns as indicated in (61a) are found in all parts of the world (cf. 3.2.1.1). This is shown in detail for Chinese in Hagège (1975: ch. 3); another version of that, in Hagège (1993: 214–15), shows the relationship between Adps and nouns in languages where the nouns in question refer to body parts, portions of space, or abstract notions.

In Table 3.2 we see that semantically, an Adp may have, depending on languages and inside one language, more than one lexical source. Thus the Adp meaning "above" comes from *wi'* "head" in Jacaltec (just as Hausa *kân* comes from *kai* "head"), but from *me:l* "sky" in Tamil and from *mâ* "surface" in Kpelle. Another example is the Adp meaning "inside": it comes from *ini* "heart" or *či:hi* "stomach" in Mixtec (the same process as for *pan* "stomach" in Cakchiquel), but from *lá* "mouth" in Kpelle; the Po meaning "behind"

TABLE 3.2.   The nouns that are most frequently grammaticalized into Adps (column A) and the Adps derived from them (column B).

	A		B
a.	*Body parts*		
	'head'	→	'on', 'above'
	'foot'	→	'under'
	'face', 'eye', 'mouth', 'forehead', 'breasts'	→	'in front of; near'
	'back'	→	'behind'
	'hand'	→	'from'
	'side', 'flank'; 'ear'	→	'beside, near'
	'stomach', 'belly', 'heart', 'mouth'	→	'in, within'
b.	*Portions of space and relational object parts*		
	'top'; 'surface'; 'north'	→	'above'
	'bottom', 'base'; 'ground'; 'south'	→	'below'
	'front part'	→	'in front of'
	'back part'	→	'behind'
	'edge'	→	'beside'
	'inside'	→	'inside of'
	'outside', 'end'	→	'outside of'
	'middle'	→	'among', 'between'
c.	*Environmental landmarks*		
	'sky'	→	'above'
	'river bank'	→	'across, beyond'
d.	*Abstract notions*		
	'trace'	→	'after'
	'thing', 'affair', 'word'	→	'because of; instead of; like; of'

comes from *pi:che* "rear" in Hindi and from *puṭhe* "back" in Gujarati; and the Adp meaning "from" comes from *yée* "hand" in Kpelle, while the dynamic meaning of a move from one place to another is more often expressed by a verb-derived Adp, in African languages as elsewhere, for example by Igbo *sité*, derived from the verb *isí* "start from". But the most frequent case is that illustrated, for example, by Kanuri, in which the words for "cause", "companionship" in the non-spatio-temporal domain, and "front", "back", "interval", "head", "belly" in the spatio-temporal one are the nouns which have been grammaticalized into function markers meaning, respectively, "because of", "with", "before", "behind", "between", "on", "in".

There are less frequent cases, however. Thus, nouns referring to abstract notions may be the sources of Adps expressing non-spatial relationships. This is illustrated by Latvian *bēda* "care, worry" and *iespaida* "impression", whose accusative singular *bēdu* and locative singular *iespaidā* mean, respectively, "for, because of" and "under the influence of" (Hagège 1993: 216), Mbum *ɓè* "thing", "affair", "word", which yields a Pr "because of" (Hagège 1990b: 266–74), or Tariana, where *yaphini* "thing" yields a Po which means, depending on the context, "instead of" or "like" (Aikhenvald 2003: 230). Note that Tariana also uses the nominal root meaning "eye" to form a Po meaning "near": *thirikuna* (*thi* "eye"+*riku* locational affix+*na* derivational affix: Aikhenvald 2003: 228), while the notion "near", in other languages, is expressed, as shown in section (a) of Table 3.2, by the grammaticalization of nouns of other body parts: in Estonian, for instance, "near" is *kõrval*, from *kõrv* "ear".

Other facts of particular languages also deserve mention here. For example, if we compare Table 3.2 with example (63) below, we note that in Maasai, "head" does not yield "on", but "in front of", and "behind" may be the grammaticalization of "back", but may also be that of "anus", just like Shilluk *tha* and Acholi *tɛ*, both of which are also Nilotic languages (cf. Heine 1989: 91–2). The reason is not hard to find: the Maasais are stock-breeders, and as a consequence, the anatomy and morphology of cattle plays an important function in their pastoral society. Such is also the case in some Cushitic languages: in Somali, *dul* "back" yields "on", because the back of a four-legged animal is horizontal. This shows that studying the genesis of noun-derived Adps implies taking into account cultural backgrounds.

In inflectional languages Adps originate from the grammaticalization of nouns which are in one particular case. Thus, in Latin, some nouns in the ablative, or more rarely in the accusative, have taken an adverbial meaning and have become governing elements, namely Adps, used either as Prs or as Pos, with a governed term in the genitive or ablative. Such Pos are, for

instance, *causā* "because of, for", *gratiā* "for the sake of, on behalf of", *tenus* "up to". The reason given by some authors, like Bonfante (1950, 1951) or Pottier (1962: 275), to reject these words as not belonging to the category of Adps, namely that they represent late formations, cannot be accepted, since this does not prevent them from functioning like any Latin Pr. In German, inflected forms of nouns (genitives) have also developed into Prs, for example *angesichts* "in view of", *ausgangs* "as a result of", *mangels* "for lack of", *mittels* "by means of", *seitens* "from the side of", *zwecks* "for the sake of", but the same has also happened with uninflected nouns, like *kraft* "by virtue of", *laut* "following, according to", *statt* "instead of" *trotz* "despite", etc. All of these words constitute Complex Adps (cf. Section 2.2.3.4) with the cases they govern, mostly genitive, dative, or both.

Similarly, nouns in the accusative constitute the background of many of the most usual Prs of classical and dialectal Arabic (cf. 2.2.3.4.b). More rarely, Adps derived from a noun and meaning "in front of" or "before" also have the meaning "than", that is are used as an Adp marking the term of a comparison which is taken as a reference. This use is observed in Modern Greek, Bihari, Navaho, and Jacaltec, according to Svorou, who explains it by stating that "to compare [two participants] entails comparing their characteristic parts, that is their front sides", but also that "in situations such as races, lines, or any other situation which involves linear movement to a goal, the one closer to the goal is in front" (Svorou 1994: 139). An even rarer phenomenon is worth mentioning: in three languages spoken in the Loyalty Island of New Caledonia: Drehu, Iaai, and Nengone (all Oceanic, Eastern Malayo-Polynesian, Austronesian), a word meaning "place" yields an agent marker. Its form, *hne/hnei/hnen* in Drehu, depends on whether the governed term is a common noun, a proper noun or a possessive suffix (Moyse-Faurie and Ozanne-Rivierre 1983).

Other facts belong to informal registers, sometimes used in literary works as markers of style. Examples are the French Compound Prs (cf. Section 3.3.2) derived from nouns used adverbially, like *crainte de* "for fear of", *histoire de* "simply in order to", *rapport à* "because of", or even from the adjectif *plein* "full" with a governed term referring to a place taken as containing something, for example in (62):

(62) FRENCH
    a. *Crainte pourtant de sinistre aventure,*
       Allons chez nous achever l'entretien (Molière, *Amphitryon*, 1–2)
       'However, for fear of a dire mishap, let's go home to finish the talk'

b. *Il avait du poil **plein** les joues*
'he had hair all over his cheeks' (Aragon, *Les Beaux Quartiers*, II, XXVI)

3.4.5.2 *Noun-derived Adps as distinct from relational nouns*   One might question the adpositional status of these derived words, by considering that they are only relational nouns, but not Adps. This would seem to be suggested by the fact that in many languages Adps historically derived from nouns keep some nominal features, especially the possibility of receiving plural marking, diminutive derivation, and possessive-like governed terms, three characteristics which will be studied, along with others, in Section 3.4.6.

All these nominal features of Adps deriving from nouns are not enough for us to reject their adpositional status and treat them as relational nouns. Some authors state explicitly that words which were relational nouns at a certain historical stage of a language have become Adps at a later stage. Thus, Harris and Campbell write about Pipil, where such words as *(i)hpak* "on", *wan* "with", or *pal* "of" must now be analysed as Pr's:

Under Spanish influence, some Pipil relational nouns shifted both in form and function to become true prepositions of the Spanish type. [...] The borrowed category "preposition" is totally at odds with the former "system" (not just the "norms"), and is not "structurally compatible" with the typological grain of the language. (Harris and Campbell 1995: 126–7)

The high degree of grammaticalization of so-called relational nouns may be observed from various facts. First, although they keep certain nominal features, they lose others: like Adps derived from verbs, they often exhibit phonetic and/or morphological alterations, as well as combinatory limitedness, syntactic specialization, and semantic reduction. For instance, Maasai has kept the plural marker on Prs governing a plural term, as seen in example (10c) in Chapter 2, but it also has Prs which, even though they co-exist with homophonous nouns, are clearly distinguished from the latter by the fact that they have no gender prefix and are invariable, as shown by (63):

(63)   MAASAI (Tucker and Mpaayei 1955: 43)

enk-orioŋ	'back, spine'	*orioŋ*	'behind'
en-dukuya	'head'	*dukuya*	'in front of'
o-siadi	'anus'	*siadi*	'behind'
en-cumata	'top'	*shumata*	'above'
enk-alo	'side'	*alo*	'beside'

Another morphological fact points to the adpositional status of complex words that might be mistaken for noun-phrases. Various examples of Complex Adps in Indo-Aryan, Finnic, and other languages were given in Section 2.2.3.4.b, which show that Adps with a nominal source no longer behave as relational nouns. In particular, we saw that bearing case inflection (or being themselves governed by simple Adps and governing nouns in the genitive (or in the partitive when it comes to Finnic Prs)) did not prevent these complex words from behaving as Adps.

An example of morphological alteration and semantic reduction which induce a clear distinction between relational nouns and Adps is the Persian Po *rā*. The noun from which it is derived originally is Old Persian *rādi*, meaning "aim", "intention", "reason". In the course of a very long grammaticalization process, which probably started around 600 BC, *rādi* came to lose its final syllable and to take the meanings "by reason of", "concerning", and later "as for" (cf. Windfuhr 1987: 534, 541). In contemporary Persian, *rā* marks, in its main function, specific direct objects. Other examples can be found in DeLancey (1997).

Furthermore, the fact that Adps derived from nouns should not be treated as simple relational nouns is shown by their behaviour in sentences where they illustrate the PAP (cf. 3.4.4.1.c). An example is (64):

(64)   FINNISH (Hagège 1993: 200)
       lentokone-et suris-i-vat   pää-mme   päällä
       plane-PL   hum-PAST-PL head-1PL.POSS above
       'the planes were humming above our heads'

In (64) *päällä* is admittedly the adessive case of *pää* "head", but *pää-mme päällä* does not mean "on the head of our head", because *päällä* is one of these Finnish Pos which have been formed, as in other Finnic languages, from an inflected noun, here with the adessive (cf. Section 2.2.3.4.b). Moreover, a phenomenon which distinguishes relational nouns from more grammaticalized or true Adps is that the former, but not the latter, may also occur as core arguments, or as complements of spatial predicates. Thus consider (65):

(65)   LEWO (Oceanic, Eastern Malayo-Polynesian, Austronesian, Vanuatu)
       (Early 1994: 97, 286)

       a. *loŋmara te -ke   ra-na*
          snake   3SG.be.at-CONT rear-3SG.POSS
          'the snake was at his rear'

b. *a-a*   *ŋma*   *ra-la*
   3PL-REAL.go DUR   behind-3PL.POSS
   'they went on after them'

In (65a), *ra* "rear" is a relational noun used as the complement of a locational predicate. In (65b), on the other hand, *ra* is a Pr, whose nominal origin is, admittedly, visible from the fact that the term it governs is a possessive adjective, but which constitutes with this term a spatial complement (and does not need, in this function, the presence of a simple Adp referring to a move). Since an important property of head nouns in a head-dependent noun-phrase functioning as a subject or complement is that these head nouns have the same function as the full noun-phrase itself, *ra* in (65b) should function as a subject or complement if it were a noun. But actually, its function is to mark an adverbial complement. We see, therefore, that the former head noun is no longer a head, let alone at a previous diachronic stage of this grammaticalization process; it cannot occur without a determining noun, often referring, for instance in most Eastern Malayo-Polynesian languages of New Caledonia, to the inalienable possessor. Certain conditions exist, however, for such inalienably possessed nouns, even those referring to body parts or portions of space, to yield Adps by grammaticalization. In Tauya, for instance (MacDonald 1990: 283–4), the nouns *nai* "rib", *otufo* "nose", *'emasi* "back (of humans)", *ma'asi* "back (of objects, like a house, etc.)" require a spatial suffix *-sa* when used after nouns or pronouns referring to humans or things, and when something is said to happen, respectively, beside, in front of, or behind these. I will not say that these nouns function as Pos in this context.

3.4.5.3 *Concluding remarks*   Verb- and noun-based Adps have long been held, by various authors, to be tied to their sources. Except in some works like Hagège (1975), it was rare, before the middle of the 1990s, to find treatments like the one proposed here and others also found today. The passage from directional serial verbs to *bona fide* Adps is not fully recognized by authors writing in a recent past, who speak of "verbal prepositions" (Durie 1988) or "locative verbs with prepositional function" (Lord 1993: 9). Nor is the passage from nouns of portions of space to spatial Adps fully recognized as such by many authors, who speak of relational nouns instead. One example, namely Thai, will suffice to illustrate the problem. Warotamasikkhadit, in an article significantly entitled "There are no Prepositions in Thai"(1988), argues that

the words which are called prepositions in the traditional Thai grammar [because "their translations into English are often prepositions"] do not constitute a single form class as in English.   (Warotamasikkhadit 1988: 75)

He compares two sentences, (66):

(66)   THAI (Kam-Tai, Tai-Kadai, Thailand) (Warotamasikkhadit 1988: 3–4)
　　a. *khǎw rîiprɔ̌ɔn dəən jàak raw pay*
　　　3SG　hurry　walk leave 1PL go
　　　'he hurriedly walked away from us'

　　b. *khǎw rîiprɔ̌ɔn dəən jàak pay*
　　　3SG　hurry　walk leave go
　　　'he hurriedly walked away'

The author says that *jàak* has the same meaning in these two sentences, and consequently it is one and the same unit. But he disregards the fact that *jàak* is complement-taking in (66a) but not in (66b), which seems a sufficient reason to posit two distinct word-classes (cf. 2.3.1.1), even though the meaning is the same, which, furthermore, is not always the case. Consider (67):

(67)   THAI (Warotamasikkhadit 1988: 7)
　　bâan khǎw yùu klay jàak bân chǎn
　　house 3SG　be　far　leave house 1SG.F
　　'his house is far from my house'

The author's gloss is also "leave" here, but this sentence does not mean that a house is leaving another house! The semantic change is a sign of the grammaticalization which produces a Pr meaning "from". The same is true of *kràthâŋ*, which means "to touch on" in an example given by the author, but "until" in another, in which he considers (1988: 75), despite this evidence, that we still have a verb. In the same way, Warotamasikkhadit denies an adpositional status to spatial Prs with a nominal origin, and treats them as "relator head nouns" (1988: 70–1), even though it appears, in the examples he gives, that *nɨa* and *tâay*, for example, when they precede, respectively, *hǔa* "head" and *tó* "table", do not mean "north" and "south", but "on top of" and "under". And finally, because *sǎmràp* and *kàp* can be used between two clauses, with the meanings "in order to" and "and", he refuses to treat them as Prs when they appear in front of noun-phrases (1988: 72–3), and mean, respectively, "for" and "with" (on this issue, cf. Section 2.3.2).

　　Other authors are less affirmative. Admittedly, Nichols writes:

Many languages lack Adps as a part of speech. For radically head-marking languages, it is common for Adps to be morphologically and syntactically indistinguishable from nouns, and they are often called *relational nouns* in the literature. [...] A relational noun agrees with its object, usually in person and number, just as a possessed noun agrees with its possessor in a noun-phrase, so

noun-phrases and PPs [adpositional phrases] are morphologically and syntactically the same kind of phrase in a language like Tzutujil.   (Nichols 1992: 58)

However, immediately after this passage, Nichols adds (1992: 59): "Nonetheless, for purposes of comparison among languages, phrases with relational nouns are counted as PPs", and elsewhere in her book, taking over the problem of the verbal vs. nominal background of many Adps crosslinguistically, she writes: "relational nons are counted as Adps, since they form phrases, but serial verbs are not, since they form clauses in at least some languages" (1992, 201–2).

This treatment misses the point: even granting that "some languages" are enough to dismiss verb-derived Adps as a whole, this argument, although based on a useful distinction between phrase-level and clause-level phenomena, is put into question by the evidence mentioned in Section 3.4.4 as proving that diachronically, verb-derived Adps are, to say the least, at the last step of the Adp-producing process. The relevant fact here is not whether a function-marking tool forms a phrase or a clause, but whether or not it governs a term and puts it in relationship with a syntactic head.

In the same vein, although more radically, another author, Helmbrecht, states:

it is sometimes hard to identify adpositional phrases, particularly in strong head-marking languages. The reason is that these languages lack European-style Adps but employ **relational nouns** which are inflected with pronouns belonging to the possessive or object series of bound pronouns. The whole construction looks then more like a possessive construction. [. . .] Other laguages—particularly in New Guinea—use so-called **serial verbs** instead of Adps, so that the resulting construction closely resembles a verbal phrase.   (Helmbrecht 2001: 1428)

The reserves expressed by these statements were even stronger thirty-five years ago. Thus, we read in Welmers, with respect to African languages, an important domain of verb- and noun-derived Adps:

In Niger-Congo languages, there are very few words which can properly be called prepositions; in some languages there may be none at all, and it is difficult to find more than two in any one language. Even the few forms that one might decide to call prepositions may have a grammatically marginal status. [. . .] To a large extent, ideas expressed by prepositions referring to motion in English are expessed in Niger-Congo languages by verbs, and ideas expressed by prepositions referring to location in English by nouns. It really ought to be trivial, but may be important in the light of the traditionalism still prevalent in African language studies, to note that many things have frequently been labelled "prepositions" which clearly are not. This is especially true in the case of languages which have serial verb constructions ; verbs with meanings

like "take, use", "start from", "arrive at", "give, do for", frequently used in serial
constructions, are commonly translatable by, and thus frequently but wrongly analyzed
as, prepositions meaning "with", "from", "to", and "for" respectively. Similarly, rela-
tional nouns with locative meaning in the Mande languages are commonly thought to
be merely or primarily preposition-like, though they may be called "postpositions"
because they occur after the possessing noun. [...] In other languages, the verbal or
nominal character of constructions translatable as adverbal complements introduced
by prepositons is perhaps more conspicuous, but it is equally demonstrable in the case
of serial verbs and relational nouns.   (Welmers 1973: 452–3)

The reason for these reserves might be the methodological cautiousness of
linguists having western languages as their mother tongue, that is to say the
most explored ones in the course of the development of the modern concep-
tion of linguistics. It is true that in western languages there is a well-established
category of Adps instead of a set of members whose former verbal or nominal
background is still apparent in some respects. Despite the thinking habits
inspired by these cautious considerations, in the present study I have decided
to assign elements with a verbal or nominal background to Adps. This is what I
also did in a typological work as early as 1975, when few works were dealing
with typology and traditional thinking on function-marking was still preva-
lent. I consider that the study of function-marking as a universal property of
human languages is no less important than the insistence on nouns and verbs
as fundamental categories. It seems that this view is shared by others, judging
by statements like the following:

the fact that a set of words with adpositional meaning arguably constitute a subclass of
some other class, such as nouns or verbs, is not considered here a reason not to treat
them as Adps.   (Dryer 2005*b*: 347)

One can add that assigning specific uses of nouns and verbs to Adps is also
based on the frequency of their occurrence with that status. As noted by Zipf
some time ago:

The allocation of a word to a part of speech reflects the probabilities of its usage rather
than all possibilities of its usage, for one can, for example, use any substantive as a
verb, indeed use the word of any part of speech in the manner of another: e.g.,
(prepositons as substantives) "the ins and the outs"; (verbs as prepositions) "all
except John," "all save John".   (Zipf 1935: 226–7)

Sections 3.4.4 and 3.4.5 have provided arguments to justify the treatment of
verb- and noun-based function markers as Adps. Despite the important
common points between transitive verbs and Adps, recalled in Section
3.4.4.1.a (both Adps and transitive verbs are complement-taking and set up

a syntactic relationship between their complement and the rest of the sentence), Adps with a verbal background have become distinct from verbs, and function exactly like Adps in languages without verb-derived Adps. The latter, going back to old function-markers which already had this status in the early stages of many languages, are also quite distinct, morphologically, from verbs. For instance, in English, French, or Japanese, while verbs are often polysyllabic, simple Adps tend to be monosyllabic or, less often, dissyllabic.

3.4.6 *On some verbal and nominal features of Adps*

Sections 3.4.4 and 3.4.5 have shown that many languages have Adps whose lexematic sources are verbs or nouns. In this section I will consider several features of Adps which point to the verbal or nominal backgrounds of some or all of them in a number of languages. I will consider as verbal and nominal, respectively, the features studied below, simply because in general, they are distinguished by the fact that some, like tense, aspect, mood, etc., are mostly associated with verbs in languages, and others, such as articles, gender, number, deixis, demonstratives, possessives, etc., are mostly associated with nouns. But we know that a number of languages have, for example, nouns inflected for tense, and the distinction adopted here has practical purposes only.

I will examine below inflected Adps (3.4.6.1), class, gender, number, and deixis agreement of Adp-phrases (3.4.6.2), plural Adps (3.4.6.3), Adps with diminutive, augmentative-intensive, or approximative affixes (3.4.6.4), connective Adps (3.4.6.5), possessive-like governed terms (3.4.6.6), and negative Adps (3.4.6.7). More specific points will be treated in Chapter 5, for example meaning-triggered variations of comitative Adps in certain languages (cf. Section 5.3.3.4.b).

3.4.6.1 *Inflected Adps*   In certain languages the verbal background of Adps appears in the fact that they can combine with tense-aspect or personal markers, and therefore, be "conjugated". This feature, as far as personal markers are concerned, is found in certain Oceanic languages like To'aba'ita. Celtic languages, which are classical examples of governed term changes triggered by Adps (cf. Section 3.3.3.1.a), are also classical examples of morphological changes of Adps in combination with personal pronouns. Welsh, for example, has prepositional phrases which may belong to one of three distinct paradigms. We find, in this language, *ataf i* "towards me", *atat ti* "towards thee", *arno ef* "on him", *dani hi* "under her", *arnom ni* "under us" in

the first conjugation, *drwoch chwi* "through you", *ynddi:nt hwy* "in them" in the second, and *genni:f i* "with me", *ganddi hi* "with her" in the third conjugation. Welsh is more conservative, in this respect, than Breton, which more commonly uses the inflected Pr alone, as in *ewidomp* "for us" or *ganeoc'h/genoc'h* "with you people".

Writing on the central importance of Prs in the morphology and syntax of Celtic languages, MacGuill (2004: 60) says that "Irish adores prepositions". Dillon and Ó Cróinín speak of "prepositional pronouns", and note (1961: 77) that in Irish, which has, among others, a Pr *ar* "on" and a Pr *ó* "from", the prepositional phrases meaning "on me" and "from you" are not expressed by *ar mé* or *ó tú*, but by *orm* and *uait* respectively. Other examples are given in (68), from among the many uses, affective, idiomatic, etc., of such prepositional phrases in Irish. Celtic languages also use combinations of Prs with possessive adjectives, yielding idiomatic expressions in which the governed term of the Pr is not, in fact, the possessive with which it is blended, but the whole noun-phrase in which the possessive is followed by a verbal noun expressing, in Scots Gaelic, the progressive, as in example (69):

(68)   IRISH (Celtic, Indo-European, Ireland) (Meid and Roider 1999: 222)

     a. *bhí*   *eagla*   **orthu**
        be.3SG.PST   fear   on.3PL
        'they were afraid' (lit. 'was fear on them')

     b. *tá*   *grá*   **agam**   *duit*
        be.3SG   love   at.1SG   to.2SG
        'I love you' (lit. 'is love at me to you')

(69)   SCOTS GAELIC (Celtic, Indo-European, United Kingdom) (MacKinnon 1971: 136)

     tha   *e*   **gam / gad / ga / gar / gur / gam**   *bualad*
     be.3SG   3SG   at.my/at.thy/at.his~her/at.our/at.your/at.their   striking
     'he is striking me/thee/him~her/us/you people them'

Some traditional handbooks speak of conjugation, for example Bowen and Rhys Jones (1960: 112): "A number of Welsh prepositions have personal forms which can be conjugated". This does not seem to be enough to treat this phenomenon as a case of Adps historically derived from verbs. The morphological change of Adps in combination with personal pronouns is a feature which makes them comparable with the other types of Adp combinations examined in the following sections. Furthermore, the "conjugated" Prs do not

exhibit exactly the same personal affixes as verbs, whose type of combination with affixes may be compared with that of Prs, but are much older, going back to Indo-European (cf. Schrijver 1997). In Welsh, for example, the personal suffixes are:

- Sg. 1 -*af*, 2 -*i*, 3 *a*/-*ø*-, Pl 1 -*wn*, 2 -*wch*, 3 -*ant* in the indicative, and 1 -*wyf* / -*of*, 2 -*ych*/-*ot*, 3 -*o*, Pl 1 -*om*, 2 -*och*, 3 -*ont* in the subjunctive,

while the prepositional phrases, for example with the Pr *rhag* "in front of", are:

- Sg 1 *rhag-of*, 2 *rhag-ot*, 3M *rhag-ddo*, 3F *rhag-ddi*, Pl 1 *rhag-om*, 2 *rhag-och*, 3 *rhag-ddynt*.

Furthermore, certain Welsh Prs exhibit a phenomenon which does not occur in verb conjugation in this language: *am* "around" and *o* "from" require, in their inflection, another, older, Pr, namely *tan* and *hon*, suffixed to them, hence *amdan-ynt* "around them" and *ohon-ddi* "from her". Similarly, in Breton, *beteg* "until" requires, to be inflected, the adjunction of another Pr, hence, for example, *betegenn-añ* "(reaching) as far as him". It should also be noted that the third persons of inflected Prs in Celtic languages distinguish themselves from verbs in the third person by the fact that they often have a more complex form, with the insertion of a dental or sibilant consonant, for example Breton *di-ñ* "to me", *di-t* "to you", but *d-ez-añ* "to him", and similarly *warn-on* "on me", *warn-out* "to you", but *warn-ez-añ* "on him". Finally, one can note that there are no convincing examples of Adp inflection with Pos instead of Prs. If inflected Adps were historically derived from verbs, the Adp-phrases they constitute with their governed term being the same phenomenon as a conjugated verb, inflected Pos should exist, since personal affixes may, depending on languages, precede verbs as well as follow them.

The combination of Adps with tense-aspect markers is less frequent, but it is attested. Malagasy is a noticeable example. Consider (70):

(70)   MALAGASY (Eastern Malayo-Polynesian, Austronesian, Madagascar)
       (Dez 1980, I: 203)
       n-anoratra t-amin'ny pensily
       PST-write PST-with pencil
       'he wrote with a pencil'

This example exhibits, in addition to the verbal past marker *n-*, another past marker, *t-*, which usually appears with spatial deictics and is here extended to a Pr by a kind of adpositional tense agreement.

3.4.6.2 *Class, gender, number, and deixis agreement of Adps and Adp-phrases* Class agreement is attested for case-marked adverbial complements, and gender-number agreement for Adp-marked ones. This is shown by (71) and (71′) respectively:

(71)   AVAR (Avar-Andi-Tsezic, Daghestanian, Nakh-Daghestanian, Russia, Azerbaijan) (Charachidzé 1981: 32–3)

    a-w   *hit'ina-w*   *či*   *w-aqaraw*   ***rosno-w-e***
    DEM-CL.M   small-CL.M   man   CL.M-embarking   canoe-CL.M-ALL

    w-ussana   ***roq'o-w-e***
    CL.M-returned   home-CL.M-ALL

    'this small man, having embarked in a canoe, turned back home'

(71′)   REGIONAL ITALIAN OF RIPATRANSONE IN THE MARCHES and other southern dialects (Lüdtke 1977: 174)

    a. *lu*   *frəkí*   ε *ítu*   *a*   *r:óma*
       ART.M   boy   is   gone.M   to   Rome.M
       'the boy has gone to Rome'

    b. *le*   *frəkíne* ε *íte*   *a*   *r:óme*
       ART.F   girl   is   gone.F   to   Rome.F
       'the girl has gone to Rome'

In (71) we see that the masculine human class-marker *w* linking to *či* "man" the demonstrative morpheme *a*, the adjective *hit'ina*, the participle *aqaraw* and the verb *ussana* also appear on two allative case-marked complements. In (71′) an allative Adp-phrase receives, on the governed term, *r:óma* or *r:óme*, a gender marker for agreement with the subject, masculine *lu frəkí* and feminine *le frəkíne*, as well as with the past participle belonging to the verbal predicate, namely masculine *ítu* and feminine *íte*. This type of agreement is one of the possible structural features showing how adverbial complements, instead of functioning as mere peripheric complements, can be made closer to the other components of sentences.

Deixis agreement is observed in African and Austronesian languages in particular. Example (72) is taken from Wolof:

(72)   WOLOF (West Atlantic, African, Senegal) (Robert 2006: 158)

    a. *c-i*   *néeg* *b-i*
       in-PROX   room   the-PROX
       'in the room (close to me)'

    b. *c-a*   *néeg* *b-a*
       in-DIST   room   the-DIST
       'in the room (far from me)'

Example (72) shows that the inessive preposition *c-* agrees in deixis with the class marker *b-* required by the word *néeg* "room": like *b-*, the preposition *c-* takes the proximal marker *-i* when the place to which reference is made is close to the speaker, and the distal marker *-a* when this place is far from the speaker.

Finally, a rare and interesting phenomenon deserves to be mentioned here. The Iwaidjan languages employ a construction for expressing "be with, have" and "be without, not have, lack". Consider example (73):

(73)   IWAIDJA (Non-Pama Nyungan, Northern Territory, Australia) (Evans 2000: 131)
        buɲaɹi   mirinayaj ɹaga   guɲag
        3SG.without crocodile DEM place
        'this place has got no crocodile'

Evans demonstrates (2000: 127–32) that *buɲaɹi* whose root is √*wuɲag*, like equivalent elements in other Iwaidjan languages such as Garig, Ilgar, and Maung, is not a verb. It has some morphological properties of nouns and adjectives, but treating it as an inflecting preposition accounts for its syntactic and semantic features. Thus, while such languages as Welsh and other members of the Celtic family have prepositions inflecting in agreement with the object (cf. 3.4.3.5.d), Iwaidjan prepositions have the special feature of inflecting for their "subject".

3.4.6.3 *Plural Adps*   Certain languages have Adps that can be in the plural. Maasai provides an illustration of this phenomenon, as seen in (10c) in Chapter 2, given there as an example of tone-marking by tone, and reproduced here as (74):

(74)   MAASAI (Tucker and Mpaayei 1955: 216)
        ḿme sídái toó-(i)l-áyìò-(ò)k
        NEG good for-M.PL-boy-PL
        'it is not good for the boys'

In this example we see the Pr *toó*, a plural form, used before a noun in the plural. Such is also the case in Semitic languages. In almost all Arabian dialects, except those in High Egypt and Sudan, there is a plural form *baynat* "between", which is not attested in Classical Arabic (Procházka 1993: 91-8). A variant of *baynāt*, namely *ambēnāt*, is found in Chad Arabic:

(75)   CHAD ARABIC (Hagège 1973: 54)
        katalō   ambēnāt-hom
        kill.PFT.3PL.S between -3PL.O
        'they killed one another'

Another Semitic language, Hebrew, has plural Adps. In Israeli Hebrew there are plural Prs like *lifne* "before", *mipne* "because of", *me'axore* "behind": these Prs end in *-e*, which is the reduced form of the plural masculine suffix *-im*; such was also *ē* in Biblical Hebrew, in which we find prepositional phrases like *aḥarē-xa* (behind (lit. "the rears of")-2SG.POSS) "behind you", *le-fanē-xa* (lit. to-front (lit. "the faces of")-2SG.POSS) "in front of you". This feature of some Hebrew Prs was noted by an illustrious philosopher in a passage (where *le-fanē-* is mentioned) of an interesting book about Biblical Hebrew:

> Prepositions are nouns that express the relationship between an individual and something else. [...] That prepositions are beyond any doubt nouns [...] is sufficiently clear. [...] But many deem it absurd that they also have a plural. But why should'nt they have a plural, since prepositions are really nouns? [...] Although prepositions cannot simultaneously refer to several relationships, some of them switch from the singular to the plural [...] either because the relationship is conceived of as an often repeated one, or because it has to be expressed with more intensity. For example *'aḥar* "after" has a plural *'ahare* which means "long after". [...] Almost all prepositions can be inflected in that way. An exception is, however, *lifne* "before", which has no singular. It is inflected in the plural because it is formed from the noun *panim*. (Spinoza 1968: 107–9)

This passage was a statement, as early as 1677, of the importance of nominal traces still being found in noun-derived Adps. It should be noted that dual Adps also exist. Arabian dialects spoken in Egypt, Sudan, Alep, Mecca, and Anatolia exhibit a form *ḥāwālēn/hawlayn* "around" (probably with the literal meaning "on or from both sides of"), as in:

(76)   DIALECTAL ARABIC (Semitic, Afro-Asiatic, Procházka 1993: 132–3)
   a. KAIRO
      sūr   ḥāwālēn   il-bēt
      wall around   ART-house
      'a wall around the house'

   b. SIIRT (eastern Turkey, near Van lake)
      ḥawlayn bayt-i   kɔll-u
      around   house-POSS.1SG whole-3SG.M
      'around my whole house'

3.4.6.4 *Adps with diminutive, augmentative-intensive, and approximative affixes*   Some languages have Adps which can receive diminutive and other affixes, and thus take the corresponding meanings. This is true, for

instance, of languages belonging to quite different families: Arabic and Tariana. In some dialects of Arabic, especially urban dialects of Maghreb, such Prs as *ba'da* "after" or *fawqa* "above" can receive the diminutive infix *-ay-*, yielding, by a change of the first vowel from *a* to *u*, the diminutive forms *bu'ayda* "shortly after" and *fuwayqa* "slightly above" (cf. Procházka 1993: 8, fn. 24). Such forms are used much less in Classical Arabic, a language whose derivational morphology, although very rich, is essentially focused on a tightly structured system of verbal and nominal formations applying strict rules of consonant and vowel template constructions. The most hybrid and mongrelized of all Arabian dialects, Maltese, although largely faithful to this typically Arabic morphology, has also introduced a number of derivational processes which are alien to Arabic. One of them produces an augmentative meaning by adding a suffix *-nett*, from Italian *netto* "neat, clean", to various word-types, among them Prs, hence, for example, *fu'-nett* (at.the.top.of.-*nett*) "at the very top of" (cf. Vanhove 1994: 176).

In Tariana (Aikhenvald 2003: 232), Pos meaning "after", "behind", "inside", "near", "on top of", "in the middle of", "upstream from", "because of" can take the phrasal enclitics *-tiki* diminutive, *-pu* augmentative-intensive, and *-iha*, approximative, for example:

(77)   TARIANA (Aikhenvald 2003: **232**)
  di-a-pidana   *di-**dalipa**-tiki-ya-tha-pidana*
  3SG.NF-go-REM.PST.REP 3SG.NF-near-DIM-EMPH-FR-REM.PST.REP
  pani-si *i-**thirikuna**-tiki-ya-pidana*
  house-POSS INDEF-by-DIM-EMPH-REM.PST.REP
  'he went really very near to him, very close to his house indeed'

3.4.6.5 *Connective Adps* The relationship between modifier and modified is regularly marked by the genitive case in declension languages. But languages also use connective morphemes which are not case affixes, but Adps, although one can follow the usage which, by extension, calls them genitive markers too. In many languages the connective Adp is a special morpheme that links two nominal elements or groups together without any agreement of a type comparable to the one found in other sorts of connectives, to be examined below. Such is the case of Chinese *de*, Japanese *no*, Korean *ɔy*, among many others. In languages of the Romance type, the connective morphemes, for example French, Spanish, and Portuguese *de*, are originally, as in their late Latin ancestor, partitive markers. Often, connective Adps are themselves former nouns originally meaning "property", "thing". This is the case in Maghrebi dialectal Arabic *mtā'/btā'/*(Maltese)*ta* (unknown in Classical

Arabic, which marks nominal dependency with the genitive of the dependent noun).

Another illustration is Thai *khɔ̌:ŋ* (with falling–rising tone), which, depending on the context, is either used with this nominal status and means "property", or is a connective Pr meaning "of". One may also mention the corresponding words found in some Platoid and Igboid languages, for instance Jukun or Igbo, where *bū* and *ŋ̀kè*, respectively, are used as connective Adps. In other African languages, connective Adps agree with the head, that is the modified noun (possessed noun when this relationship is one of possession). Typical examples are Chadic, Nilotic, and Bantoid languages. In Hausa, the connective Adp is *na* or *ta* depending on whether the modified noun is masculine or feminine, these morphemes being shortened to *-n* and *-r* in most uses. Many other African languages exhibit comparable phenomena. Thus, in Luo we find such examples as (78):

(78)   Luo (Nilotic, Eastern Sudanic, Nilo-Saharan, Kenya, Tanzania)
       (Plank 1995*b*: 45)

   a. *duong'*   *ma-r*   *piny*
      greatness.SG CONN.PR-SG land
      'the greatness of the land'

   b. *kinde*   *ma-g*   *yueyo*
      time.PL   CONN.PR-PL   rest
      'times of rest'

Bantu languages also express, on this model, many spatial meanings. The Adps here take the form of Compound Adps inside which a former noun, preceded by a locative marker, appears as a possessed element coding either a body part or a spatial concept, and linked to the possessor by a linking morpheme showing class-agreement with this noun. The grammaticalization process results in assigning the head noun along with the linking morpheme the status of a Pr, while it assigns the status of governed term to the possessor. The latter cannot appear as a personal pronoun, but either as a noun or as a possessive adjective referring to the only conceivable possessors, namely animate beings (classes 1 and 2). This is shown by example (79):

(79)   BEMBA (Bantoid, Benue-Congo, Niger-Congo, Democratic Republic
       of the Congo) (Givón 1979: 214)

   a. *pá-i-sámbà-lyà*   *ngá:ndà*
      CHOR-PREPR-bottom-CONN.PR.CL5 house
      'under the house'

b. *kú-ǹ-númà-yà*   *ngá:ndà*
CHOR-PREPR-back-CONN.PR.CL9 house
'behind the house'

Another Bantu language, Swahili, exhibits a structure comparable to that of Luo to express the connection between two nouns, the connective Adp agreeing in class with the modified element as in:

(80)   SWAHILI (Plank 1995*b*: 45)

a. *m-toto*   *w-a*   *Ali*
CL1-child CL1-CONN.Pr Ali
'Ali's child'

b. *wa-toto*   *w[a]-a*   *Ali*
CL2-child CL2-CONN.Pr Ali
'Ali's children'

c. *ki-tanda*   *zh-a*   *Ali*
CL14-bed CL14-CONN.Pr Ali
'Ali's bed'

Swahili is presently a toneless language and has also lost the preprefix. To express such spatial meanings as those in (79), Swahili does not use the locative marker, but has generalized the class 9 morpheme which links it to the governed term, as in (81), while conserving, despite its creole-like features, the strength of its Bantu properties, as is shown by the Bantuization of the Arabian word *ba'da* in (81c):

(81)   SWAHILI (Racine-Issa 1998: 87)

a. *juu-ya*
superior.part-CL9.CONN.Pr
'above'

b. *chini-ya*
inferior.part-CL9.CONN.Pr
'under'

c. *baada-ya*
after-CL9.CONN.Pr
'after'

Swahili also has a Compound Adp *kwa* "with", constituted by the association of the class 17 classifier *ku* with the connective Pr *a*. Swahili has another use of this Compound Adp, namely the apudessive marker *kwa* "at X's (house, place)", built, again, with the class 17 classifier *ku*+the connective Pr *a*. Examples (27a–b) in

Chapter 5 show this polysemy. Furthermore, *kwa* also means "for", and is used in several other Compound Adps, such as *kwa ajili ya* "on behalf of", *kwa sababu ya* "because of" (both of which contain loanwords from Arabic). In these Compound Adps we notice the presence of the class 9 connective+*a*, as in (81).

In Indo-Aryan languages, the connective Adp, probably also a noun originally meaning "thing belonging to, property", agrees with the modified noun and therefore takes different forms, depending on the latter's case, gender, and number. Thus (cf. Payne 1995: 287), in Lahnda, and to some extent in western Punjabi (closely related to it, but not quite similar to it in this respect), the forms are, in the direct and oblique singular and direct and oblique plural, *nã̄*, *ne*, *ne*, *neã̄* respectively in the masculine and *nī*, *nī*, *nīã̄*, *nīã̄* in the feminine, all forms whose original meanings are "side", "direction", "accompaniment", and "behalf". They are the result of a grammaticalization of such nouns into function-marking morphemes; in Hindi the head nouns are preceded by a connective Po *k*+vowel agreeing with them, hence a change of this vowel, in gender and number; the Po is itself preceded by the governed term, in the genitive, or possessive, case. In Standard Hindi, the corresponding forms are masculine *kā*, *ke*, *ke*, *ke*, and feminine *kī*, *kī*, *kī*, *kī*, as shown by example (82):

(82)   STANDARD HINDI (McGregor 1972: 9)

a. *us*   *strī*   **ke**   *beṭe*
   DEM.GEN woman CONN.Po.PL son.NOM.PL
   'that woman's sons'

b. *us*   *ādmī kī*   *bahnoŋ* **kā**
   makān
   house
   DEM.GEN man CONN.PO.SG.F sister.PL CONN.Po.SG.M
   'that man's sisters' house'

Hindi has also built a number of Complex Adps, for instance X *ke-pas*, *ke-lie*, *ke-sāth* or *kī-taraf*, respectively "beside", "towards", "with", and "for X". The same is true of other Indo-Aryan languages of India, namely Assamese, Bengali, Punjabi, Marathi. In this language *rāmā pāšī* "with Ram" goes back to Sanskrit *rāmasya* (genitive of *rām*)+*pāršve* "on side of Rama". In the modern form of this language the connective marker *-tSyā* and its variants are optional; the governed term takes, as when it precedes one of the six case suffixes, the oblique form (which varies depending on its gender, number, and morphological class), and the last element, if it is not a simple one, like *āt* "in" or *bāher* "outside", may be inflected itself, given its nominal origin. This is shown by example (83):

(83)   MARATHI (Pandharipande 1997: 147, 514)

    a. X-*(tSyā)* **kəɖe**
       X-CONN   towards
       'towards X'

    b. X-*(tSyā*   **kəɖ** -*ūn*
       X-CONN   towards-ABL
       'from X (where X refers to a place)'

    c. *Madhū-(tSyā)* *hātā-ne*
       Madu-(CONN) hand-INSTR
       'through Madhu (lit. "by Madhu's hand")'

The Po *kəɖe* "towards", uninflected in (83a), receives an ablative case suffix in (83b), which means, literally, "from the way going towards the place called X".

Two unusal phenomena found in Indo-Aryan languages should also be noted. First, in Romani dialects the connective Po, in addition to case, number, and gender agreement with the modified, also has two allomorphs with initial *k-* and *g-* depending, respectively, on the singularity and plurality of the modifier (cf. Payne 1995: 288), hence, with a plural modifier, *gero, gere, gere, gere, geri, gera, gere, gere* in Slovak Romani, as shown for *geri* in example (84). Second, in Kashmiri (cf. Payne 1995: 290), admittedly a Dardic language, and therefore much more influenced by Iranian languages than other Indic languages, the form and type of the connective Adp depend not only on the case, gender, and number of the modified N, but also on whether the modifying noun-phrase is common or proper, masculine or feminine, animate or inanimate, singular or plural; hence, in the direct case, the various forms *un* (animate masculine singular proper nouns), *uk* (inanimate masculine singular common nouns), *und* (animate masculine singular common nouns), and *hund* (feminine and plural masculine nouns, as shown in example (85a)), which, to mention this form only, has itself an inflectional paradigm of sixteen different members, namely, in the masculine, eight for direct, oblique I, oblique II, and agentive in the singular and plural, and another eight forms for the feminine; for example, we have oblique I singular masculine *hind'is*, and agentive plural feminine *hinzaw!* In addition, Kashmiri represents the best case in the Indian subcontinent of an agreeing Po with a function other than genitive: this language has another agreeing Po which is not a connective but a destinative Po, namely *k'ut*, which, like the four connective Adps mentioned above, has sixteen forms, one of which is illustrated in example (85b):

(84)   SLOVAK ROMANI (Indic, Indo-European, Slovakia) (Ventc'el and
       Čerenkov 1976: 305)
       roméŋ   *geri*   *chai*
       female.Gypsy.PL of.SG.F daughter.SG.F
       'Gypsies' daughter'

(85)   KASHMIRI (Dardic, Indo-European, Pakistan India) (Zaxar'in and
       Edel'man 1971: 113)
       a. *məl'ts*   *ti*   *məjt*   ***hund***   *kār*
           father.OBL.I and mother.OBL.I of.DRCT.PL.M case.DRCT.PL.M
           'father and mother's cases'

       b. *cūr'an*   *k'it'aw*   *gur'aw*
           thief.PL.OBL.II for.PL.F.OBL.II horse.PL.F.OBL.II
           'horses for thieves'

Note that among case affixes as well as among Adps, there are examples of
variation in the form of the genitive, such as found, among others, in the
Lezgic languages of the Nakh-Daghestanian family, like Tsakhur, where this
form changes depending on both the case and the class of the modified N
(cf. Mel'čuk 2006: 131), just as we have seen that the Swahili connective Adp
varies depending on the class and number of the modified noun.

A similar interpretation—one that views a connective Adp as derived from
a former noun—might be suggested for fairly exotic phenomena, like post-
position agreement in Erzya Mordvin:

(86)   ERZYA MORDVIN (Finnic, Finno-Ugric, Uralic, Russia, Kazakhstan)
       (Plank 1995*b*: 73)
       *ki kantsindz'e w'edra-t-n'i-n' w'ed **mare-t-n'i-n'***
       who carries bucket-PL-DEF-GEN water with-PL-DEF-GEN
       'who carries the buckets with water?'

Frans Plank, who borrows this example from Ernst Lewy (1920), resorts to all
sorts of hedges, such as "at least according to Ernst Lewy", or "if Lewy's data
and analysis are to be trusted". Plank stresses that "unlike in modern Indic,
the carrier here is not a specialized attributive postposition but an instru-
mental one", and compares this situation with that of Yir Yorond, a Pama-
Nyungan Australian language spoken in Cape York Peninsula (Alpher 1976),
in which a comitative-instrumental postposition *lon*,

sometimes, especially in more loose-knit or even afterthought constructions, appears
to do what possessive and other case suffixes frequently do in Australian—carry case
marking copied from primaries.   (Plank 1995*b*: 73)

In fact, as will appear in Section 4.2, there is no fundamental difference between subordinating a noun-phrase to a head noun-phrase with a connective Adp and subordinating an Adp-phrase to a head noun, whatever the Adp this Adp-phrase contains.

Another way of forming a connective Adp is to link two nouns with a morpheme meaning "which (belongs) to". This is what has been done with *šel* = *še* "which"+*l* "to" in Mishnaic Hebrew, namely the form of Hebrew that began to spread among Jewish communities towards the end of the second century BC, and became increasingly different, in various respects, from both biblical and post-exilic Hebrew (cf. Hagège 2009: 251–2). Instead of (87a), we thus have (87b) or (87c):

(87) HEBREW (Semitic, Afro-Asiatic, Israel) (Hagège 2006b: 81–2)
    a. BIBLICAL:
        bet   *ha-iš*
        house(CSTR.ST) ART-man
        'the man's house'

    b. MISHNAIC AND ISRAELI
        ha-bayit šel ha-iš
        ART-house of ART-man
        'the man's house'

    c. RABBINIC AND ISRAELI
        bet-o   *šel ha-iš*
        house(CSTR.ST)-POSS.3M.SG of ART-man
        'the man's house'

Spinoza says astutely (1968: ch. 8) that it is normal for a noun, like *bayit*, to undergo a reduction (hence *bet-*) when a suffix makes it non-absolute.

Certain languages have morphemes which, being used to connect two nouns, a modified and a modifying one, would seem to be connective Adps, but which have another use: they also link a noun with a modifying adjective. Albanian and !Xun are such languages. The Albanian linking particle agrees with the modified noun in gender and number: it takes the forms *i*, *e*, or *të*, depending on whether the modified noun is masculine, feminine, or plural (sometimes also singular), as seen in (88). In !Xun we find such noun-phrases as (89a) and (89b):

(88) ALBANIAN (Indo-European, Abania, Serbia, Montenegro, Macedonia)
      (Drizari 1947: 556)
    a. *kjo   ësht   puna   e   shtet-it*
        DEM be.3SG work.F.SG LM.F.SG government-ART.M.SG.GEN
        'this is the business of the government'

b. *ajó   flet   fjalë   të   mire*
   3SG say.3SG.PRS word.M.SG LM.M.SG good
   'she says a good word'

(89) !Xᴜɴ (Northern Khoisan, Khoisan, Namibia, Angola) (Snyman,
      1970: 107)

   a. *tšʼu   wa   !o!neŋ*
      house LM inside
      'inside the house'

   b. *≠xanu wa   g≠a*
      book   LM old
      'old book'

We see in (88) and (89) that the Albanian morphemes *e* and *të*, as well as the
!Xun morpheme *wa*, all function, depending on the context, either as a
connective Adp linking a modified noun and its modifier, or as a linker of
another type, namely a tool which is obligatory to link an adjective with
the noun it modifies. No connective Adp may have these two uses. In
addition, !Xun has Pos with a nominal origin, which are linked by the same
wa morpheme to the governed term, hence in (89a) the modifying element
occurs in the first position, whereas in (89b) it occurs in the second position.
This behaviour is not that of a connective Adp.

Finally, the form of the connective Adp may also be only tonal, as in
Yoruba, where we find such noun-phrases as

(90) Yᴏʀᴜʙᴀ (Defoid, Benue-Congo, Niger-Congo, Nigeria, Benin)
      (Welmers 1973: 282)

   a. *ònà _   kpákpá*
      way CONN.Pr field
      'the way to the field'

   b. [*ònà   Èkó →*] *ònā Èkó*
      way.CONN.Pr Lagos
      'the road to Lagos'

In (90a), the connective Pr is a pause at the mid level, which, according to
Welmers (1973), "is not always discernible". In (90b), on the other hand,
where there is, in the structural form, a succession of two vowels with low
tones, the first one at the end of the head noun and the second one at the
beginning of the dependent noun, the connective Pr is realized as a mid
tone replacing low on the first of these two vowels. As far as the distinction
between Adps and case affixes is concerned (cf. Section 2.2.2), one can say

that the mid tone in example (90b) is a Pr rather than a case affix, because if it were a case affix, it would be the only one to be so used in this language: Yoruba has no other case in the morphological acceptation of the term.

3.4.6.6 *Possessive-like governed terms of Adps*   Another sign pointing to the nominal origin of Adps in many languages is the fact that when their governed term is not a noun but a substitute, it may take the form of a possessive adjective instead of a personal pronoun like those which follow Celtic "conjugated" Adps (cf. Section 3.4.6.1). This is observed in such Adp-phrases as French *à notre sujet* "about us", *à ton égard* "towards you", or English *on my behalf*, a structure which is not always possible, however; for instance, a construction like *to send a person in one's stead* is viewed as somewhat literary if not archaic, and *instead of* is more common with a governed term which is not a noun.

Another example is Arabic, as illustrated by (91), where the governed terms of the repeated Pr meaning "between" are a noun and various forms of a possessive suffix, depending on the person:

(91)   CLASSICAL ARABIC
   a. ***bayna-kum*** *wa* ***bayna*** ***aχi:-kum***
      between-2PL and between brother-2PL
      'between you people and your brother'

   b. ***bayn-i***   *wa*   ***bayna-ki***
      between-1SG and between-2SG.F
      'between me and you [a woman]'

Similarly, the (Biblical and Israeli) Hebrew Prs *b* "in, at", *l* "to", *'im* "with", *min* "from" (with boundary phenomena, as in *mimeni* "from me") may take possessive suffixes as governed terms. This is also true of the object-marker *'et* (cf. Section 2.2.2.4.e) (which probably comes from a noun with the abstract meaning "thing, sign"), as in *'ot-o* "him" or *'ot-anu* "us".

The same phenomenon occurs in many other languages, such as Finnish, Evenki, or Fulani. In Fulani, the Pr meaning "with", *ɓē*, comes from a noun which is no more used as such, but the governed term of this Pr, like that of any Fulani Pr, necessarily takes the form of a possessive suffix, for example the -*am* of the first person singular, hence *ɓē-am* "with me". Similarly, if one wants to say "behind him/it (animate being)", and depending on whether reference is made to a man (*ko* class), a dog (*ndu* class) or a horse (*ngu* class), one will use respectively, after *ɓaawo* "behind", the words *maako, maaru,* or *maagu,* all of them possessive adjectives meaning "of him/her/it", because

ɓaawo is the grammaticalization of a homophonous noun meaning "back (of a living being)".

These facts can be compared with those found in Hungarian, which are only briefly mentioned in section 2.2.4.b–c: (92a) shows that the governed term, when it is a pronoun, is a suffix following the Adp, while (92b) shows that when the governed term (i.e., diachronically, the possessor), is nominal, it precedes the Po (without being echoed, in Hungarian, by a resumptive possessive suffix). Another possibility, illustrated by the related language Zyrian, is a split involving, when the governed term is a pronoun, the choice between head-marking, as in (93a), and Po following the governed term and itself followed, as in (93b), by a locative marker (which, in fact, does not mark the internal structure of the postpositional phrase, but its relation with the predicate):

(92) HUNGARIAN

    a. *mellett-em* (Nichols 1992: 54)
        beside-1SG
        'beside me'

    b. *a   ház   mellett* (*ibid.*)
        ART house beside
        'beside the house'

(93) KOMI-ZYRIAN (Finnic, Finno-Ugric, Uralic, Russia) (Nichols 1992: 54)

    a. *vyl-am*
        on-1SG
        'on me'

    b. *me   vyl-yn*
        1SG.NOM on-LOC
        'on me'

The Hungarian and Komi-Zyrian treatment has something in common with the one found in a language considered as "probably [. . .] affiliated with the Uralic family" (Maslova 2003: 1), Kolyma Yukaghir. In this language spatial Pos may be directly related, as in example (94a), to the term they govern, or be themselves, as in (94b), inflected with one of the case suffixes of the spatial paradigm, that is directional -*in*, prolative -*n*, ablative -*t*; some Pos can also, due to their nominal origin, be followed by a possessive marker for oblique case, *de*, their argument being dropped if it is a personal pronoun, itself followed by a spatial suffix in one of the cases just mentioned, as in (94c):

(94)   KOLYMA YUKAGHIR (Uralic, Russia) (Maslova 2003: 268–74)

    a. *tittel ōžī   molho kurūk* ejre-ngi
       3PL   water INESS always walk-3PL.INTR
       'they always walk in the water'

    b. *aqa   juö-lu-ge   šoromo-die-k   ohoq   jekl'ie-t*
       suddenly see-1SG-DS person-DIM-PRD fireplace behind-ABL
       jede-j-l
       appear-PFT-SF
       'suddenly I saw a small human being appearing from behind
       the fireplace'

    c. *šök-telle   al'-d-ge-n   qono-s'*
       enter-SS.PFT near-POSS-SP.SUF-PROL go-PFT.INTR.3SG
       'he$_i$ came in and passed him$_j$ by'

The cohesion between the Adp and a special type of governed term, a possessor morpheme, is also a characteristic feature of Mayan languages like Tzutujil, or Mam, exemplified in (95). Other examples are Uto-Aztecan and Papuan languages, as seen in (96) and (97). In all these examples we find the structure personal/possessor morpheme+Po+noun-phrase. The Po in these languages is the product of the grammaticalization of a noun, here referring to a body part or space, and followed, in Classical Nahuatl, by a locative marker. This is the reason why the morpheme which precedes it often takes, if it is not a personal pronoun, the form of a possessive pronoun:

(95)   MAM (Mayan, Guatemala) (England 1983: 72)
    at-ø   jun e   jun woo' at-ø
    LOC.PRD-3SG one time one toad LOC.PRD-3SG
    t-aal   t-uj   jun a'
    3POSS-offspring 3POSS-in one water
    'once upon a time there was a toad that had its offspring in the water'

(96)   CLASSICAL NAHUATL (Stolz 1992: 20)
    ī -tēn-co   *in   cuahui-tl   ti-huî*
    POSS.3SG-(lip =)along-LOC ART tree-NL.SUF 1PL-go.PL
    'we walk along the wood'

(97)   MAYBRAT (Dol 1999: 88)
    t-ai   m-kah   ara
    1SG-hit 3SG.Nt-with stick
    'I hit (it) with a stick'

One can consider Nahuatl -*tēn*, Mam -*uj* and Maybrat -*kah* as Pos, since the three of them are postposed to the personal/possessive morpheme, which then appears as their governed term. The noun-phrase that comes after this group can therefore be treated as an apposition to the personal/possessive morpheme, the association noun-phrase+personal/possessive morpheme constituting the governed term of the Po. However, since this noun-phrase follows the group in question, some authors prefer another treatment. Thus, Bakker (2005: 198) calls Maybrat *kah* in example (97) a "person-marked preposition".

The structure exemplified by (95)–(97), in which the Adp governs a nominal term through a possessive affix cliticized to the Adp, can be taken as a case of head marking, if we consider the Adp, inside the Adp-phrase, as the head. As opposed to that, we have dependent marking when it is not the Adp, but the noun, which is marked, in Dyirbal by a case affix and in Chechen by a Complex Adp constituted by a Po and the case affix it requires:

(98)   DYIRBAL (Pama-Nyungan, Australian, Australia) (Dixon 1972: 93)
        balan   *ɖugumbil*   *baŋgul*   *yaraŋgu*
        there.NOM.CLII   woman.NOM   there.ERG.CLI   man.ERG
        baŋgu   *yuguŋgu*   *balgan*
        there.INSTR.CLIV   stick-INSTR   hit.PRS/PST
        'the man is hitting the woman with a stick'

(99)   CHECHEN (Nakh, Nakh-Daghestanian, Russia) (Nichols 1992: 50)
        beːra-na   *t'e*
        child-Dat   on
        'on the child'

3.4.6.7 *Negative Adps*   The last feature, among those which regard the verbal and nominal features of Adps, is the existence of morphologically negative Adps. The negative part of such Adps may be the same as a verbal or nominal negative affix, for exampe the *un-* in *unlike*. It may also be an adverbal unit, as the -*out* in *without*. It may even have the form of an independent negative word, like Israeli Hebrew -*lo*, Maghrebi Arabic -*lɛ* (cf. Section 3.3.1), or the *méi* in Mandarin Chinese *méiyǒu* (literally "not have"), a negative comparative, meaning "not as (X) as" (Section 5.3.3.4.d). Other negative Compound Adps of that kind are French *il n'y a* (*avait*, etc.) *pas* (cf. Section 5.3.3.3.d) and French *non loin de*, cf. example (71b) in Chapter 2, reproduced here as (100):

(100)   FRENCH (Meillet and Cohen 1952, t. 2: 753)
         ce   *groupe* […] *occupe*   *la*   *vallée du*   *Nil*   *depuis*
         DEM   group   occupy.3SG.PRS   ART   valley of.the   Nile   from

> *Assouan* [...] *jusque non loin de*   Fachoda
> Assouan   till   not far from Fachoda
> 'this group [of languages] occupies the Nile valley from Assouan down
> to not far from Fachoda'.

In this example, if the element *non* of *non loin de* were treated as an element qualifying *loin, loin* would then be a head and would have a syntactic role by itself. In fact, *non loin de Fachoda* appears as the governed term of the Pr *jusque.* Therefore, *non loin de* is better viewed as the negative counterpart of the Compound Adp *loin de.* The same analysis can be proposed for the corresponding English couple *far from* vs. *not far from.*

In this chapter I have shown that Adps and Adp-phrases, if one extends the search to many languages and language families, exhibit a very striking morphological diversity, whether in terms of distribution over the world or in terms of word-order features and internal structures. All these morphological properties should appear as the conditions for the phenomena which characterize Adps in syntactic terms, namely their role as function-markers, in different ways and on different levels. This syntactic study, which appears as the natural outcome of Chapter 3, will be the subject of Chapter 4.

4

Adpositions and adpositional phrases in a syntactic perspective

Chapter 3 has studied an important aspect of Adps, namely the morphological aspect, which is the one by which they distinguish themselves from all other function markers, especially case affixes. As far as the syntactic aspect—the main concern of the present chapter—is concerned, Adps and case affixes have many points in common, since they both mark various complement types, which they link with a syntactic head, whether this head has a predicative function or not. The forms and functions of case affixes have been much studied in the recent literature, from Hagège (1982) through Blake (1994), Plank (1995a), Iggesen (2005), Comrie *et al.* (eds) (2005), and Mel'čuk (2006), to mention only a few among a number of works. On the contrary, the particular way in which Adps *per se* participate in the marking of these syntactic functions has not been thoroughly examined, if only because linguists rest on the assumption that with respect to case as a general concept, case affixes and Adps do the same job.

Given this situation, an important typological work remains to be done today. Just as I have tried to characterize Adps by their general features in Chapter 2, and by their morphological characteristics crosslinguistically in Chapter 3, what I will stress in the present chapter is not the much-studied problem of case in general, but the specific features by which Adps distinguish themselves from other strategies used by languages to build syntactic relationships between units in the framework of sentences and clauses. I will dwell on syntactic facts, some of which are the preferred, or even exclusive, domain, of Adps and Adp-phrases.

Adps can be nominalized, and therefore, they can themselves function as participants (cf. Section 2.3.1.2 for some examples). But their main use is as constitutive members of Adp-phrases. Adp-phrases can be one of the main syntactic units through which the predicate is extended into a multi-layered sentence. But Adp-phrases, instead of depending, as complements, on verbal predicates, can also depend on noun-phrases. Another important, and

relatively neglected, role of Adp-phrases is to function, themselves, as predicates. In addition, whether predicate or not, Adp-phrases can be qualified by various elements, and they can also be focalized. Let us also recall that, when considering Adp-phrases in a diachronic perspective, we see that they can be further grammaticalized, and yield certain new syntactic tools (cf. Section 2.5).

In this chapter, therefore, I will successively examine Adp-phrases

- as core and peripheral complements of verbal predicates (4.1);
- as complements of nominal heads (4.2);
- as serving the predicative function (4.3);
- as scopes of certain operations, i.e. as heads with respect to certain dependent elements and as focus in sentences (4.4).

In conclusion, I will offer some examples of the syntactic diversity of Adp-phrases (4.5).

4.1 The contribution of Adp-phrases to the relationship between verbal predicates and core vs. peripheral (circumstantial) complements

This topic lies at the centre of syntactic studies. Linguists have adopted various terminologies to refer to the function fulfilled by complements with respect to the verbal predicate, meaning by that the main one, since Adp-phrases can also depend on a secondary predicate, as will appear in Section 4.1.1.3. The complement type I am interested in here is called adverbial in the English-speaking tradition, because the effect of Adps is to transfer the term they govern into a complement having the same function as an adverb. According to Steinthal (1891), the Greek Stoician philosopher Chrysippos is the one who added to the four cases distinguished by the Stoicians—nominative, genitive, dative, and accusative—a fifth, which the Latin tradition called *casus adverbialis*, and which, in association with the term it governs, builds an adverbial complement. It should be noted, however, that in general the Greeks did not recognize adverbial complements explicitly, probably because they studied jointly, under the same label *próthesis*, syntactically heterogeneous facts: prefixes and Prs.

Tesnière (1959: 459) says that there is a "translation from substantives into adverbs by means of prepositions or postpositions [...], a phenomenon which is extremely frequent in languages".

But Tesnière also introduces his famous distinction between *actants* and *circonstants* (1959: 102–9), the former referring to complements that mark core relationships, and the latter to adverbial complements. The term *circonstant*

has become the usual one, in the French, and more generally, Romanist tradition, to refer to what is called adverbial in English. In Chapter 5 I will take over this term in its English form, *circumstantial.* It is striking to note that an author who writes in English but is not unaware of the French tradition, Mel'čuk, uses this term fairly often (Mel'čuk 2006: 237, 239, 240, 259, 275), but does not mention it in his Subject and Term index (*ibid.*: 608–15). In this chapter, I will use the term *peripheral* complement for what is in semantic terms a *circumstantial* complement, because the notions of core and periphery are easy to oppose to each other.

Among more recent authors, who speak in terms of case in general, we find such distinctions as abstract and concrete cases in Lyons (1968: 295), core and peripheral cases in Blake (1994: 34), who also speaks, however (*ibid.*: 32), of grammatical and semantic cases, or, treating a particular language, relational and adverbial cases in Bergsland (1997). In the present chapter I will use the core/non-core terminology, of which I have given a summary in (11) in Section 2.2.2.1, which presents core, or grammatical, arguments vs. non-core, or peripheral, that is spatio-temporal and non-spatio-temporal, arguments.

I will first examine the relationships between verbal predicates and Adp-phrases in general (4.1.1). Since the behaviour of Adp-phrases in the relationship between verbal predicates and core vs. peripheral complements is one of the issues in which the specific contribution of Adps to the expression of functions is especially interesting, I will then study this behaviour, by showing the common points between core and peripheral complements (4.1.2). An important problem to be treated after that is the behaviour of Adps with respect to secondary predicates and subordinate clauses (4.1.3). I will then show that just like case affixes, Adps are not always indispensable tools of adverbial complement marking, and that in many languages there are unmarked adverbial complements (4.1.4).

4.1.1 *On various types of Adp-phrases depending on verbal predicates*

In this section I will successively study the relationship between Adp-phrases and, first, static verbal predicates (4.1.1.1), second, spatial adverbs and Adp-phrases functioning as heads of Adp-phrases in exclamative sentences (4.1.1.2), third, non-static verbal predicates (4.1.1.3). Then I will comment the existence of double-marking strategies in Adp-phrase marking (4.1.1.4), and the problem of word-order (4.1.1.5).

4.1.1.1 *The relationship between Adp-phrases and static verbal predicates*   In the structure expressing the relationship between Adp-phrases and static

verbal predicates, which often take the form of adjectives in languages possessing this word type, something is said about a provisory or characteristic aspect of the participant expressed as a governed term of the Adp. This structure is illustrated by (1), (2) and (3), the last of which contains, in (3.c), a predicatively used adjective *senior* which heads two Adp-phrases, namely *as yourself* and *in the school*:

(1)   FRENCH
    a. *le climat d'ici est convenable **pour ce travail***
       'the weather here is convenient for this work'

    b. *Pierre est bon **envers moi***
       'Peter is kind to me'

    c. *Jean est généreux **avec ses amis***
       'John is generous with his friends'

    d. *il est amoureux **d'elle***
       'he is in love with her'

(2)   DANISH (Brøndal 1950: 17)
    *færdig **med dig***
    ready   with   2SG.ACC
    'your fate is sealed'

(3)   a. *John is happy **about that***
    b. *she was sometimes offputting **with her colleagues***
    c. *to constitute the jury, you will turn to colleagues as senior **as yourself in the school***
    d. *he met a girl beautiful **beyond all others***

4.1.1.2 Spatial adverbs and Adp-phrases functioning as heads of Adp-phrases in exclamative sentences   Some languages use a spatial adverb or Adp-phrase as the heads of Adp-phrases in sentences in the exclamative mood. English examples are given in (4) and German examples in (5):

(4)   ENGLISH (Shopen 1972: 29–35)
    a. *in the dungeon **with him**!*
    b. *in front of the house **with those garbage cans**!*
    c. *behind the barn **with those pitchforks**!*
    d. *under the pillow **with that tooth**!*
    e. *between the gatepost and the road **with that mailbox**!*

f. *off the desk!*

g. *out of my room!*

h. *away from the stove!*

f′. *off the desk with your feet!*

g′. *out of my room with those potato chips!*

h′. *away from the stove with that box!*

i. *into the dungeon with him!*

Examples (4a–e) could be answers to questions with the meaning of stationary location, for example *where is he?*, *where did he stay?*, *where did they keep or put them?*; (4f–h) can be interpreted as commands concerning the starting-point of a motion, (4f′–h′) as imperatives of motion referring to body parts or objects, and (4i) as an imperative of motion concerning a human being. We note that all the Adp-phrases in (4a–e) and (4f′–i) are headed by the Pr *with*, which means that we can analyse these sentences as containing spatial adverbs or spatial adverbial phrases that function as heads of Adp-phrases in exclamative sentences, or consider the *with*-headed Adp-phrases as subjects in a structure comparable to the one in:

(5) GERMAN (Germanic, Indo-European, Germany)

a. *nieder mit dem Direktor*
   'down with the manager'

b. *nieder mit dem Krieg*
   'down with war!'

c. *'raus mit der Sprache*
   out with ART language
   'come out with what you have to say!'

4.1.1.3 *The relationship between Adp-phrases and non-static verbal predicates* This relationship involves, in most cases, Adp-phrases which are adverbial complements. It is a syntactic phenomenon which is common to most languages, and, like other syntactic phenomena, is much less subject to variation than the morphological phenomena of Adps and Adp-phrases studied in Chapter 3. Therefore, in order to examine these various types, I will, rather than giving examples from many languages which would more or less amount to the same, focus on two typologically very different languages, English and Chinese. A quite common type of sentence is (6):

(6)   MANDARIN CHINESE (Hagège 1975: 88)
    tā   **wàng**   *xī*   *zŏu*
    3SG towards west walk
    'he is walking towards the west'

Other structures, also attested with static verbal predicates, contain two coordinated Adps governing the same term, which is then taken in two different adverbial meanings, as in (7), or a complex succession of two or more Adp-phrases depending on the same predicate, as in (8), in which there are three juxtaposed Adp-phrases:

(7)   ENGLISH
    a. *this will be forbidden **on and after** the 10th*
    b. *he lived **among and for** the poor*

(8)   MANDARIN CHINESE (Hagège 1975: 296)
    liăŋ rén **bă** *xíngli* **tì** *tā* **wàŋ** *yī biān bān le*
    two man PMK luggage for 3SG towards one side carry PST
    'the two men carried him his luggage close by'

Note that (8) contains the patient marker *bă*, an important characteristic of Chinese, occurring with certain transitive verbs and in certain contexts, and submitted to various limitations, like the agent marker *bèi*, equivalent in some of its uses to the English Pr *by*:

(9)   MANDARIN CHINESE (Hagège 1975: 369)
    wŏ **bèi** *tā* *wèn le* *xŭduō wèntí*
    1SG AMK 3SG ask PST many question(s)
    'I was asked many questions by him'

Very commonly, one also finds two Adp-phrases linked by a parallelism, like positive/negative, as in (10), or origin/destination, as in (11):

(10)   MANDARIN CHINESE (Hagège 1975: 294)
    tā **wèi dàjiā,** *bù* **wèi zìjĭ** *nàyàng zuò*
    3SG for all NEG for himself thus do
    'he doesn't do that for himself, but for everybody'

(11)   MANDARIN CHINESE (Hagège 1975; 298)
    wŏmen Zhongguó zé **cóng** *rénmín* **dào** *zhèngfŭ* *yílǜ*
    1PL China then from people to government unanimously
    jŭ qi le yìqí
    raise DIR PST justice-flag

'In China, from people to government, we have unanimously raised the flag of justice high'

In all examples given so far, the Adp-phrase depends on a main predicate. It can also be headed by a secondary predicate, or gerund of various types depending on languages. A Mandarin Chinese example is (12):

(12) MANDARIN CHINESE (Hagège 1975: 271)
gēn   tā   xiāngfǎn tā   shì yī   ge   yóujiānhuŏlā de
with 3SG opposed 3SG be one CL boiling   CONN.ADP
xìngzi
character
'as opposed to him, she has a fiery personality'

4.1.1.4 *Double-marking strategies in Adp-phrase marking*   In the study of the syntactic dependency of Adp-phrases with respect to the predicate, an interesting point is the existence of double-marking strategies. The dependency of the Adp-phrase towards the predicate being marked by the Adp itself, we may expect that there will be no other mark. However, there are languages which use, in addition to the Adp, a subordinating morpheme. An example is Mandarin Chinese:

(13) MANDARIN CHINESE (Hagège 1975: 267)
jiù   mùqián tiáojiàn   lái   kàn kěyǐ zhǐchū
according.to present condition(s) ADV.MK see can highlight
'if (we) consider (things) according to the present conditions, (we) can highlight (this)'

In (13) the averbial marker *lái* is a mark of the dependency of the Adp-phrase *jiù mùqián tiáojiàn*, besides the Pr *jiù* itself, which puts *mùqián tiáojiàn* in the dependency of the secondary predicate *kàn*. Note, however, that in example (13) *jiù* is a pertentive Pr (cf. Sections 5.3.1 and 5.3.3.4.a), whereas *lái* is simply an adverbial marker. This is a confirmation of an important point: while *lái* has no other role than that of a dependent-marking element, *jiù* is what all Adps are: Adps are more than simple subordinating tools used in order to mark the dependency of Adp-phrases. Adps are, in addition, semantically complex morphemes, which belong to the lexicon as much as to syntax. In other words, Adps are morpho-lexical units. This will be the subject of Section 5.2.1.

4.1.1.5 *Word-order and Adp-phrases*   It is often claimed that crosslinguistically, languages having nominal declension systems with case affixes tend to have a less rigid, or more flexible, word-order than declension-less languages. The reason generally provided in classical handbooks is that, in Latin for instance, as early as

the first century AD, the presence of stress on penultimate or antepenultimate syllables brought about an increasing weakness of unstressed final syllables, and especially of the final -*m* of masculine and feminine accusatives. This evolution began to go hand in hand with

the tendency to mark the syntactic function of words by their order in sentences; and so, the free word-order of the old language was superseded by a more rigid sentence structure in Romance languages, where the position of words has the function that case endings used to have in Latin: it was possible in this language to say *Petrus Paulum ferit, Paulum Petrus ferit, Paulum ferit Petrus*, etc.; to express the same idea, modern French is left with only one construction: *Pierre* (subject) *frappe Paul* (object) […] ["Peter hits Paul"]. Prepositions were summoned to inherit the function which case inflections were losing due to their insufficiencies. At the last stage of this evolution, prepositions even ruled them out, for instance in French as well as in English.   (Ernout et Thomas 1953: 9–10)

This traditional account may apply to the core functions of subject and direct object, which, in isolating languages like English or Mandarin Chinese, are strictly marked by word-order. But the relative flexibility which Latin, German, or Russian exhibit with respect to the position of subjects and objects in sentences does not mean that languages which have Adps but no case affixes require a rigid and invariable position of their Adp-phrases when these are peripheral complements, including those in which the Adp is a Complex Adp, that is an association of a case affix *and* an Adp. In languages without case affixes, such as English and Mandarin Chinese, adverbial Adp-phrases, unlike core adverbials, do not always occupy one and the same position. An example is (14), in which the causal Pr occurs in two different positions in the same sentence, both in Mandarin Chinese and in the English translation:

(14)   MANDARIN CHINESE (Hagège 1975: 280)

> *wŏ   yīnle   tā   cái   néng măn yĭn   qīngchūn de*
> 1SG because.of 3SG SUB can   fill   drink youth   CONN.Adp
> *chúnjiŭ, dàn yīnle   tā   wŏ   rènshi le   rénsheng*
> liquor   but because.of 3SG 1SG know   PST life
> 'It is because of him that I was able to drink the wine of youth, but I learnt life because of him too'

Similarly, Adps governing a noun-phrase which represents the topic of the sentence may, in both languages, occupy at least two different positions, without an important semantic distance, though the difference cannot be ignored if we adopt an information-hierarchical viewpoint (cf. Hagège 1982: 27–54, and here Section 1.4):

(15)   MANDARIN CHINESE (Hagège 1975: 276)

    a. *Huō   tóngzhì   **guānyú** jìlǜ   zhǐshì shuō le   yīng   shuō*
        Huo comrade about   discipline only   say   PST should say
        de   yī   bùfen
        CONN.Adp one part
        'Comrade Huo has said about discipline only a part of what
        should be said'

    b. ***guānyú** jìlǜ Huō tóngzhì zhǐshì shuō le yīng shuō de yī bùfen*
        'About discipline, Comrade Huo has said only a part of what
        should be said'

The same flexibility, depending on the presentation strategy chosen by the speaker, is found in English and in Mandarin Chinese as well, with Adp-phrases in which the Adp has one of the meanings "with", "because of", "besides", "except", "according to" (cf. Hagège 1975: 278–82).

4.1.2 *Adps and the core–peripheral polarity*

I will show here that the boundary between core and peripheral complements is not always a clear-cut one (4.1.2.1), before examining the way Adps and case affixes behave with respect to each other as markers of core and peripheral complements (4.1.2.2); Section 4.1.2.3 will study adverbial Adp-phrases functioning as subjects and objects, Section 4.1.2.4 the phenomenon of "adjects", Section 4.1.2.5 Adp-marked objects, and Section 4.1.2.6 certain important characteristics of peripheral complements.

4.1.2.1 *On the boundary between core and peripheral complements* The boundary between core and peripheral complements might seem to be clear-cut, since the former, unlike the latter, are in general the main sentence constituents required by the valency of verbal predicates. Almost fifty tears ago, Tesnière was one of the first linguists, in the twentieth century, to distinguish core and peripheral complements in quite explicit terms through his *actants* vs. *circonstants* terminology. *Actants* is the term from which another term is derived, namely *actance*, in English *actancy*: the different types of relationships between the main actants—agent and patient, and the various ways their marks are distributed in one-participant and two-participant sentences, in relationship with other syntactic phenomena—are the criteria that distinguish between accusative, ergative, active, and other syntactic construction types, studied by some typologists under the currently fashionable term *alignment*, less clear than *actancy*.

Tesnière says that the distinction between *actants* and *circonstants* is based on two criteria: one, a morphological criterion, is that actants depend directly on the verbs and the other, a semantic one, is that actants are in general necessary to the meaning of verbs, while circonstants are optional. However, even these criteria, which Tesnière draws from familiar languages like those of the Indo-European stock, do not seem sufficient to him. He says that the boundary is not so obvious, because there are features that are common to the two members of this opposition. This leads him to stress an essential fact:

the third actant [= indirect object], and even the second actant (= direct object), even though there is no doubt that they are actants by their forms in languages that possess a dative and an accusative, are, on the contrary, particularly close to circumstants in languages where they are marked by prepositions: Fr. *Alfred donne le livre à Charles* ["Alfred is giving the book to Charles"], Rom. *Petrul bate pe Gianul* ["Peter is hitting John"]. (Tesnière 1959: 128)

We can therefore propose, in the light of this important contribution of Adps to function-marking, that there is a continuum along which various phenomena can be located, and that core and adverbial complements appear as two poles, rather than as members of a strict opposition. One of the phenomena which best illustrate this polarity is what has been called "adjects". I will study this phenomenon in Section 4.1.2.4.

4.1.2.2 *Adps vs. case affixes as markers of core and peripheral complements*   Core, or grammatical, functions are commonly held to be those of the non-predicative noun-phrases which are S (subject), direct object (DO) or indirect object (IO) of the predicate. These functions are usually distinguished not only from one another, but also from peripheral complements. What must be stressed first of all here is that crosslinguistically as well as within one language, Adps are more frequent as markers of peripheral complements, especially spatial, than as core function markers (cf. Sections 5.3.3.1–2), whereas case affixes are in general specialized in the marking of core functions, and also adnominal complements, to be treated below in Section 4.2. However, case affixes may also be used for non-core or peripheral functions, as in Latin, Classical Greek, Kanuri, or Evenki for example. But in inflectional languages, spatial functions are more often expressed by Complex Adps (cf. Section 2.2.3.4) than by case affixes, especially in Indo-European languages such as Sanskrit, Classical and Modern Greek, Slavic, and Baltic languages. The following implicational universals can be proposed:

(16)   a. Complex Adps vs. case affix Hierarchy for spatial functions:
Complex Adp > case affix

b. Concrete vs. Abstract function Hierarchy for Adps and Complex
Adps:
concrete functions > abstract functions

(16a–b) should be read as follows:

(a) if an inflectional language uses one or more case affixes to express
spatial functions, it also uses Complex Adps for these functions;
(b) if a language uses Adps and/or Complex Adps to express abstract func-
tions, it also uses Adps and/or complex Adps to express concrete functions.

More rarely, other distributions can also be found. For example, according to
Gilberti ([1558=]1987: 114), considered by modern specialists as a dependable
source, sixteenth-century Purépecha (or Tarascan), an isolated language
spoken in the state of Michoacan (western Mexico) had three case suffixes,
nominative, accusative, vocative, and two Pos, *eueri* and *himbo*, respectively
genitive and ablative.

Crosslinguistically, there are more languages with IO, but not S or DO,
marked by Adps, than languages with DO and IO, but not S, marked by Adps.
Recall, too, that in inflectional languages case paradigms often also include
genitive affixes. The result is that in inflectional languages case affixes are
more frequent than Adps. If we follow Keenan and Comrie's (1977) accessi-
bility hierarchy, which considers S, DO, and IO as ranking higher than
peripheral complements, we will predict that languages using Adps to mark
higher functions will also use them to mark functions lower on the hierarchy.
We can therefore set up the following universal hierarchy:

(17)   Crosslinguistic Hierarchy of function-marking for Adps:
Peripheral > DO > IO > S

Among the languages where Adps mark both higher and lower functions are
Japanese and Korean: the Japanese Pos *ga, o, ni* and the Korean Pos *i/ga, (r)ər,
ege* mark S, DO, and IO respectively. It must also be recalled that in Israeli
Hebrew *'et* has been imposed, by an act of will, as an O-marker (cf. Section
2.2.2.4.e). Another language in which we find an Adp used as agent-marker,
but in a restricted context, is, as shown in Section 5.1.1.2.a, Sinhala.

Comparable marking of both higher and lower functions by the same
morpheme is a phenomenon that is also attested with respect to case affixes
in Altaic languages, whether Tungusic like Even, Evenki (case-suffix *-dū* in
Evenki, cf. Kilby 1983: 50), Manchu, or Mongolic like Mongolian, in

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in Altaic languages, whether Tungusic like Even, Evenki (case-suffix *-dū* in
Evenki, cf. Kilby 1983: 50), Manchu, or Mongolic like Mongolian, in

Chukotko-Kamchatkan languages such as Itel'men and an Ugric language of the Finno-Ugric branch of Uralic, namely East Khanty (Vakh dialect: cf. Perrot 1986): in these languages the agent is marked with the same case suffix as marks the inessive case.

Another interesting language in this respect is German, in which, despite much individual variation, it is frequent for the addressee or recipient to be the former distinguished from the beneficiary by expressing the latter with a Pr and the former with a case affix, as in (18):

(18)   GERMAN

    a. *ich   schrieb   den   Brief an/ für den   Direktor*
        1SG write.PAST ART.M.ACC letter to/for ART.M.ACC director
        'I wrote the letter for the director'

    b. *ich   schrieb   den   Brief dem   Direktor*
        1SG write.PAST ART.M.ACC letter ART.M.DAT director
        'I wrote the letter to the director'

A quite natural possibility is also widely attested in a number of languages, that is the existence of both case affixes and Adps to mark certain functions. For instance, English marks S both by word order (which may be considered to have the same behaviour as an Adp when it has a distinctive function-marking status), and by the nominative case, as evidenced by personal pronouns, where declensions, as opposed to nouns, have not disappeared. This is what we can see in finite clauses, and in some non-finite clauses as well.

4.1.2.3 *Adverbial Adp-phrases as subjects and objects*   I will examine here, successively, adverbial Adp-phrases as subjects (4.1.2.3.a) and as objects (4.1.2.3.b).

4.1.2.3.a **Adp-phrases as subjects**   The English attributive Pr *for* is used in most clauses with infinitival predicate, for example as in (19c), where we see a S marked by an Adp, and in (20), an illustration of the structure studied by classical transformational grammar as "tough movement":

(19)   ENGLISH (cf. Zwicky 1992: 370)
    a. *I am happy*

    b. *they insist that I be happy*

    c. *for me to be happy would please them*

(20)   ENGLISH (Pollock 1976: 21)
    a. *this job is tough for them to do*

    b. *is it a waste of time for you to study Latin?*

Another case of an infinitival clause functioning as a subject and also containing an infinitive governed by a Pr as in English is Sardinian, where we find what Floricic (2003: 292) calls "impératif prépositionnel":

(21) SARDINIAN (Romance, Indo-European, Italy) (Floricic 2003: 292)
      a lu   fagher ki   siat!
      a 3SG.O do   that   be.3SG.SUBJ.PRS
      'let people do it!'

Literally, (21) means "let [at doing it] be".

Adp-phrases functioning as subjects are also attested in other languages. Thus, Maghrebi Arabic exhibits sentences like (22):

(22) MAGHREBI ARABIC (Semitic, Maghreb countries) (Taine-Cheikh 2004: 316)
      kīf-ī   kīf-ək
      like-1SG like-2SG
      'we are the same, you and me'

If, in (22), we consider *kīf-ək* as the predicate, both the subject and the predicate are represented here by Adp-phrases.

Such a case of Prs being used as subject-markers may be compared with the one found in certain languages of Melanesia, like Xârâcùù, in which the experiencer functioning as the grammatical subject, when s/he is totally powerless and unable to have any control on the affect (cf. Hagège 2006), is marked by the affective Pr *wã* (cf. Section 5.3.3.4.f), as shown by a comparison between (23a) and (23b):

(23) XÂRÂCÙÙ (Oceanic, Eastern Malayo-Polynesian, Austronesian, New Caledonia) (Moyse-Faurie 1995: 72)
      a. *nã   mãrã-ri   kèèpaii a*
          1SG be.concerned.about-TRZ disease DEM
          'I am concerned about this disease'
      b. *wã   pa   xũũchī mãrã*
          AFF.Pr COLL child   be.scared
          'the children are scared'

In (23a) the experiencer, even though s/he is anxious, has some control over his/her feeling, whereas in (23b), there is no control, and the experiencer is totally affected by an insuperable emotion; this is expressed by the use of the Pr *wã*, which, otherwise, is commonly used as an adverbial complement marker.

English can also use as subjects Adp-phrases with spatio-temporal meanings, including complex ones, formed by two juxtaposed Adp-phrases. Examples can be seen in (24) and (25):

(24)   ENGLISH (Jaworska 1994: 3307)
    a. *across the road appeared to be swarming with bees*

    b. *between six and seven suits her fine*

(25)   ENGLISH (Shopen 1972: 101)

    from Bloomington to San Francisco is a long way.

It is noteworthy that the solidarity between the predicate and an Adp-phrase functioning as subject may, in some languages, be marked by agreement. Thus, in Swahili the locative postpositional phrases at the beginning of the following examples are linked to the predicate by class agreement, the class markers belonging to class 16 in (26a), to class 17 in (26b) and to class 18 in (26c) (cf. Section 2.4.2.4.a):

(26)   SWAHILI (Racine-Issa 1998: 203)
    a. *nyumba-ni   pe-upe*
       house-in   CL16-nice
       'in the house, it's white'

    b. *soko-ni   ha-ku   na   unga*
       market-in NEG-CL17 with   flour
       'in the market there is no flour'

    c. *chumba-ni   mu-zuri*
       room-in   CL18-nice
       'the room is nice'

4.1.2.3.b **Adp-phrases as objects**   Adp-phrases can also function as objects, for example in English or Chinese or Navaho, as shown by (27)–(29):

(27)   a. *the campaigners planned **until Christmas** in detail*

    b. *the new tenants are reclaiming **behind the garage***

(28)   MANDARIN CHINESE (Hagège 1975: 244)
    nǐ   qiáo gāngzhí zài nèi   kuài   yúncai de
    2SG   look just   at DEM SPEC cloud CONN.PO
    shàngtou   yòubian
    top   right
    'look, just above and on the right side of this cloud!'

The boldfaced expression in (28) is an essive Adp-phrase functioning as the object of the verb *qiáo* "look". A comparable structure is observed in Navaho:

(29)   Navaho (Athapaskan, Na-Dene, United States) (Haile 1948, vol. 4: 160)
        já:n   biko:h-góya: ho-o-ł-tsá̃
        John   canyon-under   3SG.O-3SG.S-PST-see
        'John saw under the canyon'

Sardinian exhibits object Adp-phrases in infinitive clauses. Consider (30):

(30)   (Logudorese) Sardinian (Romance, Indo-European, Italy) (Floricic 2003: 290–1)

   a. *so*   *aspettende a pioer*
        be.1SG.PRS   waiting   *a* rain
        'I am waiting until it rains'

   b. *keldzo*   *a lu   fagher*
        want.1SG.PRS   *a* it.O.M do
        'I want people to do it'

   c. *keldzo*   *a lu   fagher sos   pitzinnos*
        want.1SG.PRS   *a* it.O.M do   ART.M.PL child.PL
        'I want the children to do it'

Example (30) is an illustration of the Sardinian prepositional infinitive, which is followed by a noun referring to another participant when there is one as in (30c), but remains on its own at the end of the sentence when the subject of the infinitive is not co-referent with that of the main verb, as in (30b), and when the infinitive is that of an atmospheric or other impersonal verb, as in (30a). Note the use of the purposive Pr *a* with an infinitive. It is well-known (cf., for example, Kuryłowicz 1964), that the infinitive itself is derived, in Indo-European, from a noun with a purposive meaning (cf. Section 2.5.2.1), this observation also applying to the Sardinian prepositional imperative just illustrated above.

4.1.2.3.c **Conclusion**   Although the core functions S and O are typically associated with non-adpositional noun-phrases, and preferably proper to them in most languages, let alone that in all languages word order remains for them an available function-marking process, they are not unattested for Adp-phrases. This raises problems for certain theories. Jaworska writes:

One notable consequence of the recognition of subject and object PPs [prepositional phrases] (and PP complements of prepositions) concerns the satatus of the Case

Resistance Principle (CRP) established by Stowell (1981) within the GB [N. Chomsky's government and binding theory] framework. According to the CRP, constituents headed by lexical categories that can assign case cannot appear in positions to which case is assigned. Because prepositions are case assigners and because subject, object and object of a preposition are the positions to which case is assigned, PPs—according to the CRP—are excluded from them". (Jaworska 1994: 3307)

Thus, Stowell's principle is not born out by the data from certain languages. Nevertheless, there are some limits to the possibility of Adp-phrases in object function. If they were prototypical objects in this context, it should be possible to transform a sentence containing such an Adp-phrase into one in which the same Adp-phrase functions as the subject of a passive verb. This has been shown in Chapter 2 by the impossibility of such structures as that of example (115c′), showing that only a chorophoric-marked noun-phrase, not an Adp-phrase, can occur in that context (cf. Section 2.4.2.4.a).

However, if we examine languages with case-affixes, we observe that when it comes to passivization, case-marked objects with an adverbial meaning do not exhibit the same behaviour as Adp-marked objects with an adverbial meaning, at least in a language like Classical Arabic. Consider (31):

(31)   CLASSICAL ARABIC (Hamzé 1998: 36, 45–6, 50–1)
      a. *sir-tu*   *fi: yawm-i*   *l-žumuʿat-i*
         walk-1SG.PST in day.M-DAT ART-Friday-GEN
         'I walked on Friday'

      a′. *sir-tu*   *yawm-a*   *l-žumuʿat-i*
         walk-1SG.PST day.M-ACC ART-Friday-GEN
         'I walked on Friday'

      b. *žalas-u:*   *fi: yawm-i*   *l-žumuʿat-i*
         sit.down-3PL.M.PST in day.M-DAT ART-Friday-GEN
         'they sat down on Friday'

      b′. *žulis-a   *fi: yawm-i*   *l-žumuʿat-i*
         sit.down.PASS-3SG.M.PST in day.M-DAT ART-Friday-GEN
         '*on Friday was sat down'

      c. *žalas-u:*   *yawm-a*   *l-žumuʿat-i*
         sit.down-3PL.M.PST day.M-ACC ART-Friday-GEN
         'they sat down on Friday'

      c′. *žulis-a*   *yawm-u*   *l-žumuʿat-i*
         sit.down.PASS-3SG.M.PST day.M-NOM ART-Friday-GEN
         '(Friday was sat down =) "they sat down on Friday'

    d. *takallam-a*   ***yawm-a***   *qum-tu fi:-hi*
       speak-3SG.M.PST day.M-ACC get.up.-1SG.PST in-3SG.DAT.M
       'he spoke on the day I stood up'

    d′. **takallam-a*   *yawm-a*   *qum-tu-hu*
       speak-3SG.M.PST day.M-ACC get.up.-1SG.PST-3SG.ACC.M

It is uncommon for sentence (31a′), in which we have a case-marked object with a temporal adverbial complement (equivalent to the Adp-marked object with an adverbial complement in (31a)), to be passivized, and impossible to passivize sentences with a 3rd person plural subject and an Adp-marked object with a temporal adverbial complement like (31b), hence the ungrammaticality of (31b′). But notice that there is no ban on the passivization of sentences with a 3rd person plural subject and a case-marked object with a temporal adverbial complement: (31c), whose meaning is the same as (31b), may be transformed into (31c′). However, this does not mean that such case-marked objects can be pronominalized, for example by the resumptive person marker in a relative clause, without being governed by an Adp, hence the impossibility of transforming (31d) into (31d′).

Commenting on these facts, Arabian grammarians of the tenth century said that case-marked adverbial complements with a circumstantial meaning (cf. Section 5.3.1), even though they are closer to objects than those marked by Adps, remain a non-canonical type of object. Pronouns are, in this respect, quite an interesting grammar category: **pronouns have a revealing power**, since—to put it in the terms of Arabian grammarians—they "lead elements back to their original form" (cf. As-Suyûtî (1985) citing Ibn-Ya'iš (seventh century), in Hamzé 1998: 50–1).

4.1.2.4 *The phenomenon of "adjects"*   "Adject" is a term coined by Feuillet (1987: 23) to refer to participants marked by Adps without having the optional character of adverbial complements. An example of such participants is the one that occurs in sentences whose predicate is a trivalent verb with spatial reference containing a subject and an object. Such is the case, in many languages, of verbs meaning "put", that is "place something in a spot". To mention only two languages, English says *put a book on the table*, and French, with the same meaning, *mettre un livre sur la table*. Another example of adject is the complement of verbs which require, to occur in a sentence, the presence of a local, temporal, etc., specification, as in French *il habite en ville/chez ses parents* "he lives in town/at his parents'".

Other types of adjects are Adp-marked complements which are a lexical constraint inherent in certain verbs. In declension languages many verbs

require, on their complements, certain cases which do not, synchronically, have the meaning corresponding to these cases. Examples are Russian, *bojat'sja* + genitive "be afraid" + genitive, *kasat'sja* + genitive "to concern", *vladet'* + instrumental "to master", etc. Similarly, in adpositional languages certain verbs require an Adp marking of peripheral complements even though their complement refers to a patient: such is the case of Hebrew *'azar* "to help" + attributive Pr *l*, Hindi *mila* "to meet" + comitative Po *se*, Japanese *au* "to meet" + attributive Po *ni* (also inessive- or agentive-marking in some of its other uses).

Such examples are well represented in Germanic languages, which also have case-marked peripheral complements like German *begegnen* + dative "to meet", *folgen* + dative "to follow", *helfen* + dative "to help", etc. Examples of Adp-marked peripheral complements in Germanic are Dutch *naar iemand luisteren* "to listen to someone", *op iets wachten* "to wait for something", Afrikaans *hou van* "to love", English *to abide by, to adhere to, to disapprove of, to insist on, to look for, to object to, to puzzle over, to rebel against* and other complex verbs. The distinction between these and phrasal verbs such as *bring about* for instance, as well as other types of frozen complex verbs with an idiomatic meaning is often difficult to draw exactly (cf. Section 2.4.2.3). Many of these phenomena lie on the borderline between grammar and the lexicon.

4.1.2.5 *Adp-marked objects*

4.1.2.5.a **The so-called "prepositional direct object" in Romance**   In another interesting structure, a complement standing for the patient is commonly marked by an Adp. The treatment of this complement as the governed term of a Pr is a characteristic feature of many Romance languages, mentioned as early as Diez 1836–43, and widely studied, in contemporary research, among German linguists under the label "Präpositionalobjekt" (Steinitz 1969) and, among French linguists or linguists writing in French, under the label "objet direct prépositionnel" (for instance Niculescu 1959, Pottier 1960), which is somewhat contradictory, since "direct" normally implies that there is no Adp. The Pr *a* is found in front of such complements in Spanish, Catalan, Portuguese, central and southern Italian dialects (Abruzzi, Calabria, Corsica, island of Elba, Romance Istria (Trieste), Marches, Puglia, Sardinia, Sicily, Tuscany, Umbria), Rhaeto-Romance Switzerland (Engadine and Münster valleys), south-eastern France (Provence: Carcassonne, Narbonne), Brussels, some Swiss Romance cantons (Fribourg, Geneva, Valais). The same structure is expressed by means of the Pr *da* in the Gallo-italic dialect of Nicosia (Sicily), the Pr *en(d)a* in Gascon (especially Béarnais), several Prs: *a, en, de, con, por*

in Galician, and the Pr *pe* in front of personal pronominal complements in the Daco-Romanian domain, and sporadically in the Istro-, Macedo- and Megleno-Romanian domains. These Balkan languages might have been the source, by contact in this area, of the *na* found with the same function in one non-Romance language, Našta, an endangered Macedonian dialect spoken in north-eastern Greece near Thessaloniki (cf. Adamou 2006). I give below various examples of this phenomenon in a number of Romance languages:

(32) a. SPANISH (Romance, Indo-European, Spain, etc.)
          mató   a su   mujer
          kill.PST.3SG   *a* POSS.3SG wife
          'he killed his wife'

      b. CATALAN (Romance, Indo-European, Spain) (Niculescu 1959: 175)
          jo   sé   que   tu   ames   molt   a mi
          1SG.S know SUB   2SG.S love.2SG.PRS much   *a* 1SG.O
          'I know that you love me very much'

      c. ROMANIAN (Niculescu 1959: 173)
          prindeçi pe hoaça
          take.PL *pe* thief(woman).ART
          'catch the thief(woman)!'

(33) a. PORTUGUESE (Romance, Indo-European, Portugal, Brazil, etc.)
          (Niculescu 1959: 172)
          a   nação aclamou   a D. João
          ART nation acclaim.3SG.PST *a* D. João
          'the nation acclaimed D. João'

      b. GASCON (Indo-European, Romance, France) (Niculescu 1959: 172)
          as   bist   a Yan?
          AUX.2SG.PRS   seen   *a* John
          'have you seen John?'

      c. TUSCAN (Romance, Indo-European, Italy, Island of Elba) (Niculescu
          1959: 172)
          conoscio   a Mmichele
          know.1SG.PRS   *a* Michael
          'I know Michael'

      d. SICILIAN (Romance, Indo-European, Sicily) (Niculescu 1959: 172)
          io   amu   a Diu
          1SG.S love.1SG.PRS   *a* God
          'I love God'

e. RHAETO-ROMANCE (Romance, Indo-European, Switzerland)
(Niculescu 1959: 172)

amar   a Dieu sur   tottas   chiasas
love(INF) *a* God beyond all.F.PL thing.PL
'to love God beyond all things'

(34) a. (LOGUDORESE) SARDINIAN (Romance, Indo-European, Italy)
(Floricic 2003: 248–9)

appo   vistu a Juanne/ a frate tuo/   a Napoli
AUX.1SG.PRS seen *a* John/*a* brother POSS.2SG/ *a* Naples
'I have seen John/your brother/Naples'

b. SPANISH

los   Romanos   conquistaron   a España
ART.M.PL Roman.PL conquer.3PL.PST *a* Spain
'The Romans conquered Spain'

c. TUSCAN (Niculescu 1959: 172)

o   veduto a Ppisa
AUX.1SG.PRS seen   *a* Pisa
'I have seen Pisa'

d. SPANISH (Pottier 1960: 90 and 93)

   i. *la   princesa espera   a su   hijo a*
   ART.F.SG princess wait.3SG.PRS *a* POSS.M.SG son at
   la   puerta del   palacio
   ART.F.SG gate   of.ART.M.SG palace
   'the princess is waiting for her son at the gate of the palace'

   ii. *la   esposa de don Juan Carlos espera   para*
   ART.F.SG spouse of Juan Carlos   wait.3SG.PRS for
   el   año próximo su   tercer hijo
   ART.M.SG year next   POSS.M. SG third son
   'Juan Carlos' spouse is expecting her third son next year'

   i'. *Natalicio   González elogia   a la*
   Natalicio   Gonzalez praise.3SG.PRS *a* ART.F.SG
   lucha   contra los   rojos (from a Caracas newspaper)
   struggle against ART.M.PL red.M.PL
   'Natalicio Gonzalez praises the struggle against the reds'

   ii'. *elogió   la   actitud resuelta   del*
   praise.3SG.PST ART.F.SG attitude unwavering of.ART.M.SG
   gobierno (*ibid.*)
   government
   'he praised the unwavering attitude of the government'

(35) a. SPANISH (Pottier 1960: 91)

    i. *busco*   *un*   *criado*
       seek.1SG.PRS INDEF.ART.M.SG servant
       'I am seeking a servant'

    ii. *una*   *ciudad que*   *venció*   *a*
       INDEF.ART.F.SG city   which overcome.3SG.PST *a*
       la   *sed*   *y*   *al*   *hambre*
       ART.F.SG thirst and *a*.ART.M.SG hunger
       'a city which overcame thirst and hunger'

  b. (LOGUDORESE) SARDINIAN (Floricic 2003: 260–1: fn. 20)

    i. *appo*   *vistu* (*a) *su*   *frore/su*
       AUX.1SG.PRS seen ART.M.SG flower/ART.M.SG
       cane/sa   *makkina/unu*   *pastore/metas*
       dog/ART.F.SG car/INDEF.ART.M.SG shepherd/many
       sordatos
       soldier.PL
       'I have seen the flower/the dog/the car/a shepherd/many soldiers'

    ii. *annu passadu, appo*   *visitadu sas*
       year past   AUX.1SG.PRS visited   ART.F.PL
       Balearese
       Balearic.Islands
       'last year, I visited the Balearic Islands'

    iii. *annu passadu, appo*   *visitadu a Los Angeles*
       year past   AUX.1SG.PRS visited   *a* Los Angeles
       'last year, I visited Los Angeles'

  c. ROMANIAN (Niculescu 1959: 170, 172, 174, 177)

    i. *iubesc*   *o*   *fată*
       love.1SG.PRS INDEF.ART.F.SG young.woman
       'I love a girl'

    ii. *flăcă-ul*   *acela*   *se*   *trezise*   *printre*
       young.man DIST.DEM REFL awake.3SG.PST among
       străin-i   *fără*   *să*   *cunuoscă*   *tată*   *şi*
       foreigner-PL without SUB know.3SG.SUBJ.PRS father and
       mamă
       mother
       'that young man awoke among foreigners without recognizing either father or mother'

    iii. *auzind* **pe** *cineva*   *cîntînd din*   *urmă*
        hearing *pe* someone singing from behind
        'hearing someone singing behind'

    iv.a'. *ai*   *văzut soldat-ul*
         AUX.2SG.PRS seen   soldier-ART.M.SG
         'you have seen the soldier'

    iv.b'. *l'ai*   *văzut* **pe** *soldat*
         3SG.M.SG AUX.2SG.PRS seen   *pe* soldier
         'you have seen the soldier'

(36)   COLLOQUIAL FRENCH
      ils t'ont vu, à toi!
      'they saw you, guy!'

(37)   GALICIAN (Romance, Indo-European, Spain) (Rivas 2004: 216)

    a. *Xan*   *atopou*   **a** *María*
       John find.3SG.PST *a* Mary
       'John found Mary'

    b. *Xan*   *atopou*   *o*   *seu*   *abrigo*
       John find.3SG.PST ART.M.SG POSS.M.SG coat
       'John found his coat'

    c. *Xan*   *atopou*   *traballo*
       John find.3SG.PAST job
       'John found a job'

(38)   a. GASCON (Rohlfs 1970: 180)
      alabéts que f èren   *bèngue* **ena** *soun*   *pay*
      then   ASS make.3PL.PST come   *ena* POSS.3SG father
      'then they called for his father'

    b. Galician (Rivas 2004: 195)

      i. *de seguida saca*   **de** *navalla*
        at once   produce.3SG.PRS *de* pen-knife
        'at once he produces a pen-knife'

      ii. *María esperou*   **por** *Xan*
        Mary   wait.3SG.PST *por* John
        'Mary waited for John'

      iii. *Xan comía*   **nas**   *patacas*
        John eat.3SG.PST.PRGR in.ART.F.PL potatoes
        'John was eating potatoes'

Examples (32a–c) show that the prepositional marking of the object in Romance languages is especially clear when the object has the prototypical features human and definite, whether it is represented by a noun or by a pronoun. Moreover, we note that in Romanian the article, which generally cannot appear with the governed term of Adps, is permitted after *pe*. The examples under (33) show that the Pr is obligatory when the object is a proper name referring to a human, or the word for "God". Note that the same is true of other languages outside Romance, for example in Afrikaans, where one says *ons besoek vir Pieter* (1PL visit for Peter) "we are visiting Peter". In (34a) it appears that even a proper name referring to an inanimate being can receive *a* just like those referring to humans, provided it is presented as cognitively salient, which is also the case in (34b–c). Conversely, (34d.i–ii) illustrate the fact that the same transitive verb meaning "to wait" can be construed with or without *a*, depending on whether the event occurs at a precise place and time or not. And in (34d.i′–ii′) we see that the same verb can also require or not a Pr-marked object depending on whether the event reported is stressed as when appearing in the title of a newspaper article, or unstressed, as in the text of this article.

Example (35a.i) shows that in Spanish, indefinite nouns, even human, can appear without *a*, whereas non-human but highly individualized ones may appear with *a* as in (35a.ii), unlike non-human and non-individualized patients as well as plurals, even human. This is shown by (35b.i), a Sardinian example which reflects a general Romance tendency. Example (35b.ii) shows, furthermore, that, again in Romance languages generally and beyond Sardinian, here illustrated, non-human plurals cannot receive *a* when they refer to a series of points, like archipelagos, unlike formal plurals which in fact refer to precise places (35b.iii).

Indefinite humans and even kinship terms as complements are sometimes not marked if they refer to quite virtual individuals, as is shown, respectively by examples (35c.i–ii), from Romanian, where, however, an indefinite pronoun whose human referent is supposed to be known will tend to be marked, as in (35c.iii). Example (35c.iv) illustrates a particular feature of Romanian, in which there is an equivalence between a Pr-less DO noun with an article and a Pr-marked article-less noun which is echoed by a resumptive personal marker, according to a widespread structure in Balkan languages; in fact, there is a slight semantic difference: (35c.iv.a′) means that the soldier in question is known, unlike (35c.iv.b′), which implies that the soldier is not known.

Although French does not have "prepositional direct objects" like Spanish and other Romance languages, it is quite common in colloquial French, as seen in (36), to put a noun-phrase with *à* in apposition to a pronoun which, as

opposed to the noun in the Balkanic structure just mentioned (35c.iv.b′), would suffice to make a grammatical sentence with the verb. Another interesting criterion with respect to the use or non-use of a Pr with the object in Romance is the iconic distance between the transitive verb and the patient. Mary is far from John in (37a) for she is little affected by the fact that he found her, hence the use of *a*, whereas the direct objects in (37b) and, even more sraightforwardly, in (37c) are closely linked to the verb.

Finally, (38) illustrates some of the other Prs which are attested in Romance languages, for exampe Gascon *ena* in (38a), Galician *de, por,* and *en* in (38b). Note that the structures of Galician *esperar por* and its English translation *wait for,* despite the use of the same benefactive Pr in both cases, are quite different: one is a "prepositional direct object", while the other is an adject (cf. Section 4.1.2.4).

The common characteristic of Pr-marked objects in all these languages is that they refer to highly individuated patients, of course with variable cut-off lines depending on the language: for example, *a* appears in Spanish not only with personal pronouns, proper names, human, and other animate common nouns, but also with inanimate common nouns, if the efficiency of the verb and the individuation of the object are at their highest point, and with certain verbs like *calificar* "to qualify" or *preceder* "to precede". The relationship of these phenomena with the degree of transitivity will be studied in the following section.

4.1.2.5.b **Strong and weak transitivity**   There is a difference, whether only lexical (in most languages) or morphologically or syntactically marked (in fewer languages), between degrees of transitivity: verbs meaning "to kill", "to hit", "to wound", "to attack", "to assault", "to catch", "to rape", "to destroy", "to plunder", etc. may be considered as strongly transitive verbs. Those meaning "to undergo", "to get", "to receive", etc. may be considered as weakly transitive verbs. Others lie inbetween, like those meaning "to respect", "to avoid", "to expect", and verbs of affects (cf. Hagège 2006a) such as "to see", "to hear", "to fear", etc. The distinction between strong and weak transitivity is introduced in Hagège (1981: 67–78), where it is studied in one of the languages in which this distinction is morphologically and syntactically marked, namely Comox (Salishan, Canada).

Thus, Adp-marked patients are not limited to the Romance languages. The Israeli Hebrew Pr *'et,* the Mandarin Chinese Pr *bă,* the Persian Po *râ* and the Hindi Po *ko,* for instance, are used in contexts comparable to those, studied in Section 4.1.2.5a, in which the Romance Prs are used. In all these languages, only Adps are used in this context. However, outside these languages, case affixes

are also used with this same function, for example accusative case markers in Turkish and other Altaic languages.

We may consider the various parameters at stake in the marking vs. non-marking of objects as manifestations of this transitivity hierarchy. Persian is a good illustration:

(39)   PERSIAN (Iranian, Indo-European, Iran) (Lazard 1998: 60)
    a. *ketâb xând-am*
       book read.PST-1SG
       'I read a/the book'

    b. *ketâb râ xând-am*
       book râ read.PST-1SG
       'I read the book'

    c. *ketâb-i   xând-am*
       book-INDEF read.PST-1SG
       'I read a book'

    d. *ketâb-i   râ xând-am*
       book-INDEF râ read.PST-1SG
       'I read a certain book'

In Persian, besides human and definite objects, which are always marked by *râ*, indefinite objects, not only human, but even non-human, can also take *râ*, provided they are clearly referential, as in (39d). The meaning of the object is also, here as elsewhere, an important criterion, as seen in

(40)   ISRAELI HEBREW (Semitic, Afro-Asiatic, Israel) (Danon 2001: 1081)
    a. *ri'ayan-ti   'et kol ha-mu'amad-im   ha-reciniy-im*
       interview-1SG.PST 'et all ART-candidate-PL ART-serious-PL
       'I interviewed all the serious candidates'

    b. *ri'ayan-ti   kol mu'amad reciniy*
       interview-1SG.PST all candidate serious
       'I interviewed every serious candidate'

4.1.2.6 *Peripheral complements proper*

4.1.2.6.a Definition   By peripheral complements (cf. Hagège 1983), one means those which are not core actants, that is which are neither agents, nor patients, nor beneficiaries. Peripheral complements may have either adverbial or adjunct function. In adverbial function they are required by the valency or the meaning of their head, either a verb as in (41a) or a noun as in (41a'), whereas in adjunct function, they are added to the sentence without

being required by the unit in the context of which they occur, be it a verb as in (41b), an adjective as in (41b′), or other word-types:

(41)   ENGLISH
      a. *John stayed **in the room** for a couple of hours*
      a′. *John's stay **in the room** lasted a couple of hours*
      b. *they studied maths **in the kitchen***
      b′. *this building is interesting **with respect to its history***

Furthermore, peripheral complements can be tightly linked to the predicate, and, through it, to the whole sentence. This link may be represented by three possible phenomena: treatment as direct objects, topicalization, and copy onto the verb-phrase. I will briefly study these four phenomena below, in that order.

    (i) *Conversion of peripheral complements into direct objects.* This is the phenomenon which is made possible by resorting to applicative morphemes in languages that possess them: as shown in Section 2.4.1.3.c, applicatives make it possible to convert into direct objects various kinds of non-direct complements: those referring not only to beneficiaries, but also to other Adp-marked complements, indicating position, instrument, etc.

    (ii) *Topicalization of adverbial complements by a marker inside the verb-phrase.* There are many different methods of topicalization, depending on languages and within one and the same language (cf. Hagège 1982: 53–4). One of these methods, widespread in Austronesian languages of the Malagasy, Philippine, and Indonesian types, consists of using a special morpheme associated with the verbal predicate, and orienting the verb-phrase towards one of the participants as a topic. The interesting fact here is that adverbial complements are treated, in this topicalization process, exactly like any of the other complements. An example of this well-studied feature is (42):

(42)   TAGALOG (Schachter and Otanes 1972: 79)
      a. *b<um>ili*   *ng*   *libro* *sa*   *tindahan **ang** **maestro***
          buy.PST<ATMK> NTP book LOC.Adp store   TMK teacher
          'the teacher bought a book from a store'

      b. *b<in>ili*   *ng*   *maestro sa*   *tindahan **ang** **libro***
          buy.PST<PTMK> NTP teacher LOC.Adp store   TMK book
          'the book was bought from a store by a teacher'

c. *b<in>il-han*   ng   *maestro* ng   *libro*   **ang**
    buy.PST<PTMK>-SPTMK NTP   teacher   NTP   book   TMK
    tindahan
    store
    'the store was the place where a teacher bought a book'.

We see here that the spatial complement may be topicalized by a verb-phrase-internal topic marker just like core complements, refering to the agent and the patient.

(iii) *Copying Adp-marked complements onto the verb-phrase.* The tight link between the predicate and an Adp-phrase, for instance a spatial complement, may even be showed by another quite explicit phenomenon: in polysynthetic languages whose verb-phrase is a miniaturized mirror of the whole sentence, inside the verb-phrase there is a morpheme copying the Adp-phrase just as other morphemes copy all the other elements that depend on the predicate. This is shown by (43):

(43)   QUICHÉ (Mayan, Guatemala) (Longacre 1968: 36)
       Manuel k-eb-u-lu-k'am-lok   *ri-šila*   *čke*
       Manuel IMM.FT-P-A-BEN-bring-ALL   ART-chair   3PL
       pa-ri-ha   *čanim*
       ALL-ART-house at.once
       'Manuel is going to bring them the chairs into the house at once'

The structure of (43) may be represented as (44), in which we see that just as the agent *Manuel*, the patient *ri-šila*, the beneficiary *čke*, and the tense indicator *čanim* (immediate future) are copied onto the verb-phrase as *u*, *eb*, *lu*, and *k* respectively, similarly the allative Adp-phrase *pa-ri-ha* is copied onto the verb-phrase as *lok*:

(44)   *Manuel k-eb-u-lu-K'AM-**lok** ri-šila čke **pa-ri-ha*** čanim
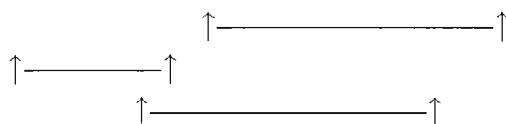
4.1.2.6.b Adps as peripherization tools   We have seen in the preceding sections that the behaviour of Adps suggests a qualification, at least as far as

syntax is concerned, of the core vs. periphery distinction. This is further shown by the fact that Adps are often used as peripherization tools when one of the core complements is demoted to the status of a non-topical, adverbial-like participant. This structure is commonly found in ergative languages, where the demoted patient is often peripherized as an oblique complement by means of an Adp. This happens especially when the agent is topicalized, for instance in (45b), where the topicalized agent simply occupies the first position after the predicate and has no marker:

(45)   SAMOAN (Oceanic, Eastern Malayo-Polynesian, Austronesian) (Milner 1972: 12)

    a. *sā-manatu **a** le teine e le tama*
       PST-think ABS ART girl ERG ART boy
       'the boy remembered the girl'

    b. *sā-manatu le tama **i** le teine*
       PST-think ART boy OBL ART girl
       'the boy thought of the girl'

Granting that the act of remembering implies a stronger transitivity and a "minor affectedness" of the patient as opposed to the act of thinking, the syntactic phenomenon illustrated by (45) is one of the manifestations of the variation in degrees of transitivy, reflecting a variation in degrees of control, as studied in Hagège (1982: 51–2), where it is shown that the other variables, besides the degree of affectedness of the patient, are:

- the degree of volition on the part of the agent, illustrated by Salishan languages such as Comox, in which there are two transitive suffixes depending on whether the agent is more or less voluntary (cf. Hagège 1981: 67–71);
- the degree of definiteness of the patient, illustrated by Avar and all varieties of Inuktitut, in which the agent is in the ergative and the genitive respectively when the patient is definite, but in the nominative in case of indefiniteness of the patient, which is then peripherized by an oblique marker (in these languages a case suffix);
- the degree of completion of the process.

An interesting illustration here is Palauan. Consider (46):

(46)   PALAUAN (Hagège 1986: 108–11)

    a. *ak l<il>'əs-í:*   *a*   *babier*
       1SG write.PFT<PST>-3SG.O DEPR letter
       'I have written the letter'

b. *ak m<il>lú'əs* r a *babier*
1SG VMK<PST>write.IMPF *r* DEPR letter
'I was writing a letter'

c. *ak m<il>lú'əs* r a *tebəl*
1SG VMK<PST>write.IMPF *r* DEPR table
'I was writing on the table'

The Palauan verb "to write", which is *mə-* (verbal marker) + *lú'əs* (root) in its imperfective present form, has in the perfective present, with the infixed verbal marker *<m>* and the 3SG person marker *-i:*, which bears stress, the structural form */l<m>u'əs-i:/* by stress shift, becoming *l<u>'əs-i:* by absorption of the verbal marker into the vowel *u* of the root. While in the imperfective form the infixed past marker *<il>* does not modify the form, as seen in (46b), *<il>* is substituted for the verbal marker in the perfective, hence the form in (46a). I recall these facts, typical of the complex, almost flectional rather than agglutinative, morphology of Palauan (whose detail is presented and explained in Hagège 1986: 50–8) in order to stress that we have the same verb in (46a) and (46b).

Thus, in Palauan, when a transitive verb with its object is in the perfective form, refering to a completed action, it takes a direct objet, as seen in (46a). On the other hand, when it is in the imperfective form, referring to an incomplete action, equivalent here to the English progressive form, its object is marked, as seen in (46b), by the peripherization marker *r*. Now, the interesting fact is that this *r* is the very same one which is used, as in (46c), to mark an adverbial complement similar to those in examples (24)–(25) in Chapter 3.

Thus, Palauan *r*, precisely because it is an oblique complement marker, makes it possible to assimilate to such complements the patient of a verb referring to an incomplete or progressive action. It is therefore the same operation which selects an object as a place, that is expressed as an oblique complement, and puts an indefinite and/or little affected patient at the periphery of the action.

Other languages exhibit a comparable behaviour. Thus, in most dialects of Quechua, the case suffix *-ta* is added not only to object complements referring to the patient of a transitive verb, but also to adverbial complements (cf. Kirtchuk 1987: 170–1), and the same is true of the Classical Arabic case suffix *-a* and of the Classical Greek accusative: in both languages, the marker of the definite patient (accusative) is also used to mark various adverbial complements, for example of measure, viewpoint, quality, etc.

This peripherization of the patient by means of an Adp marking it as an oblique complement represents one step between two extremes, namely, at one end, a high degree of control and therefore strong transitivity (marked by the ergative case on the agent in ergative languages, as in (45a)), and at the other end, low control, and hence weak transitivity, often marked by the incorporation of the patient. Consider (47):

(47)   TONGAN (Oceanic, Eastern Malayo-Polynesian, Austronesian, Tonga) (Shumway 1971: 18, 184)

    a. *na'e kai 'e   Sione 'a   e   ika*
       PST eat ERG John NOM ART fish
       'John ate the fish'

    b. *na'e kai 'a   Sione i   he   ika*
       PST eat NOM John OBL ART fish
       'John ate some fish'

    c. **kai-ika** *'a   Sione*
       eat-fish NOM John
       'John is a fish-eater'

In (47a) we have a basic transitive sentence with the agent in the ergative and the patient in the nominative. In (47b) the patient is indefinite and not so explicitly affected as in (47a), and the action is not completed as it is in (47a). As a result of all these parameters, the agent is no longer marked as ergative, receiving the nominative instead, and the patient is peripherized by an oblique complement marker. In (47c) there is no action any longer, and the only participant is defined by a particular property, so that what was a referential patient in (47a–b) becomes unreferential, and hence linked to the verb by incorporation. Other languages also incorporate the patient to refer to certain types of activities, including some ritual or special ones. Such is the case in Nahuatl, which also incorporates noun-phrases with an averbial meaning.

4.1.2.6.c **Peripherization, iconic distance and atelic objects**   The distance set up by an Adp between a transitive verb and a noun-phrase referring to the patient may be considered as a case of iconicity, since, by peripherizing this noun-phrase, one copies in linguistic terms the pragmatic distance existing in reality. Among many examples of this iconic distance, we may recall such couples as (48a) and (48b):

(48)   a. *to shoot someone*

    a'. *to shoot **at** someone*

    b. *the new professor read linguistics*

 b'. *the new professor read **on** linguistics*

 c. *I know the problem*

 c'. *I know **about** the problem*

The non-peripherized patient of (48a), unlike the one expressed as *at someone* in (48a'), is a victim of an act reaching its completion, that is death. The effect of the Prs *on* in (48b') and *about* in (48c') is, by peripherizing the complement, to point to the fact that it is not the whole domain of linguistics nor the whole problem which are concerned, but only selected areas of them, one of the effects of this structure being also that *linguistics* in (48b') and *the problem* in (48c') are less in focus. This characteristic has something to do with the other syntactic and semantic parameters of the peripherization of complements: lesser volition, lesser definiteness and lesser completion.

 In certain cases, the use of an Adp may be a way of expressing the progressive or atelic aspect. Consider (49):

(49) GERMAN (Comrie 1976: 8)

 a. *er las das Buch*
  'he read the book'

 b. *er las **im** Buch*
  'he was reading the book'

This contrast is roughly the same as that expressed elsewhere by case distinctions, for instance in Finnish, with a verb in the past, by the distinction between the accusative for a perfective process (cf. Hagège 1982: 51), as in (50a), and the partitive for an imperfective one, as in (50b):

(50) FINNISH (Hopper and Thompson 1980: 271)

 a. *liikemies kirjoitt-i kirje-en valiokuna-lle*
  businessman write-PST letter-ACC committee-ALL
  'the businessman wrote a letter to the committee'

 b. *liikemies kirjoitt-i kirje-ttä valiokuna-lle*
  businessman write-PST letter-PARTV committee-ALL
  'the businessman was writing a letter to the committee'

4.1.3 *Adps and subordination*

Section 2.3.2 treated some of the most frequent governed terms of Adps. Others, however, require a separate study in the present chapter, because they have special syntactic characteristics. All of these complement types have in common an ability to contain predicative elements which do not behave like predicates

in independent clauses. In this section I will study subject–predicate assoc-
iations (4.1.3.1) and clauses as governed terms of Adps (4.1.3.2).

4.1.3.1 *Subject–predicate associations as governed term of Adps*   Such governed
terms are, for instance, those found in sentences like (51):

(51)   *he slept with the window open*

The Adp-phrase in such a sentence can be analysed in two different ways.
According to the first analysis, represented in Figure 4.1, *the window* and *open*
are viewed as two separate governed terms of the Adp:

```
                  Adp-phrase
            ╱         │        ╲
         Pr     noun-phrase      AP
         │         ╱   ╲          │
       with     the   window    open
```

FIGURE 4.1.   AP = adjective phrase

According to the second analysis, represented in Figure 4.2, *the window* and
open constitute together a subject–predicate association, functioning as a
single governed term of the Adp, and sometimes called a small clause
(cf. Jaworska 1994: 3306):

```
              Adp-phrase
          ╱              ╲
        Pr                SC
        │              ╱      ╲
        │        noun-phrase   AP
        │             │         │
      with       the window    open
```

FIGURE 4.2.   SC = small clause

Both analyses seem possible. Consider, now, examples (52)–(54) (cited in Jaworska 1994: 3306):

(52)   *we cannot remain silent **with all our students hostages***

(53)   *they did their work **without the baby demanding attention***

(54)   *do not get out **with a hat on your head***

The two analyses in Figures 4.1 and 4.2 could equally well be applied to examples (52) and (53). However, for example (54), the analysis in Figure 4.2 has the advantage of treating *on your head* as the complement depending on a noun(-phrase), which is more economical. The portions of (54) *the hat* and *on your head* constitute together an interesting construction, which could be analysed as the association of a noun with an adnominal Adp-phrase, a largely ignored phenomenon in linguistic research, which will be studied in Section 4.2. But *with* does not govern only noun-phrases, like *the hat on your head* in (54). It appears also in what is called "'with absolute' constructions" by McCawley (1983), who claims that the NP in this structure is an underlying subject of *be* in some cases, and an underlying object of *have* in others. The first case is clearly illustrated, according to McCawley, in examples like (55) and (56):

(55)   *with it obvious that the money is lost, we don't know what to do*

(56)   *with the windows not open, it must be very uncomfortable in that office*

The second case, in which McCawley restitutes an underlying *have*, is illustrated by (57) and (58), both of which exhibit a peripheral complement, the adverb *currently* in (57) and the Adp-phrase *in every port* in (58):

(57)   *with no job currently, Sam is happy*

(58)   *with a girl in every port, Harry feels pretty contented*

4.1.3.2 *Clauses as governed terms of Adps*

4.1.3.2.a Adps vs. conjunctions   Some linguists do not distinguish Adps from subordinating conjunctions, also called "subordinators" or, in various terminological traditions, including the Chomskyan one, "complementizers". We have seen in Section 2.3.1.1 that Jespersen sees no reason for this distinction—since Adps and conjunctions both govern terms, even though the governed term of a conjunction, unlike that of an Adp, is a clause—and that Jaworska does not distinguish between Adps and conjunctions either. She suggests (1994: 3304) that such a distinction would mean "missing a

in independent clauses. In this section I will study subject–predicate associations (4.1.3.1) and clauses as governed terms of Adps (4.1.3.2).

4.1.3.1 *Subject–predicate associations as governed term of Adps*   Such governed terms are, for instance, those found in sentences like (51):

(51)   *he slept **with the window open***

The Adp-phrase in such a sentence can be analysed in two different ways. According to the first analysis, represented in Figure 4.1, *the window* and *open* are viewed as two separate governed terms of the Adp:

```
                    Adp-phrase
                   /    |    \
                  /     |     \
                 /      |      \
                /       |       \
               Pr   noun-phrase   AP
               |      /   \       |
               |     /     \      |
               |    /       \     |
             with  the    window open
```

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According to the second analysis, represented in Figure 4.2, *the window* and *open* constitute together a subject–predicate association, functioning as a single governed term of the Adp, and sometimes called a small clause (cf. Jaworska 1994: 3306):

```
                 Adp-phrase
                /      \
               /        \
              /          \
             Pr           SC
             |           /  \
             |          /    \
             |         /      \
             |   noun-phrase   AP
             |        |        |
             |        |        |
           with  the window  open
```

FIGURE 4.2.   SC = small clause

Both analyses seem possible. Consider, now, examples (52)–(54) (cited in Jaworska 1994: 3306):

(52)   *we cannot remain silent **with all our students hostages***

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The two analyses in Figures 4.1 and 4.2 could equally well be applied to examples (52) and (53). However, for example (54), the analysis in Figure 4.2 has the advantage of treating *on your head* as the complement depending on a noun(-phrase), which is more economical. The portions of (54) *the hat* and *on your head* constitute together an interesting construction, which could be analysed as the association of a noun with an adnominal Adp-phrase, a largely ignored phenomenon in linguistic research, which will be studied in Section 4.2. But *with* does not govern only noun-phrases, like *the hat on your head* in (54). It appears also in what is called " 'with absolute' constructions" by McCawley (1983), who claims that the NP in this structure is an underlying subject of *be* in some cases, and an underlying object of *have* in others. The first case is clearly illustrated, according to McCawley, in examples like (55) and (56):

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(57)   *with no job currently, Sam is happy*

(58)   *with a girl in every port, Harry feels pretty contented*

4.1.3.2   *Clauses as governed terms of Adps*

4.1.3.2.a **Adps vs. conjunctions**   Some linguists do not distinguish Adps from subordinating conjunctions, also called "subordinators" or, in various terminological traditions, including the Chomskyan one, "complementizers". We have seen in Section 2.3.1.1 that Jespersen sees no reason for this distinction—since Adps and conjunctions both govern terms, even though the governed term of a conjunction, unlike that of an Adp, is a clause—and that Jaworska does not distinguish between Adps and conjunctions either. She suggests (1994: 3304) that such a distinction would mean "missing a

generalization". The reasons she gives for treating Adps and conjunctions as one and the same word-class in English are:

(i) their identical behaviour with respect to clefting;
(ii) the use of the word *right*.

Interestingly, this word, besides its use as an argument to assimilate Adps and conjunctions, is also used as a criterion to show that in English beneficiaries cannot be treated like direct objects when they immediately follow a transitive verb with another direct object (cf. examples (3e–f) in Section 2.2.1.1). It is also used by some authors as a criterion to distinguish between lexical and grammatical Adps. Thus, according to Rauh (1995), a position taken over by Himmelmann (1998), while grammatical Adps do not permit specifiers and adjuncts, lexical Adps, at least in some languages like English, do permit them, as shown by (59a–c):

(59)   ENGLISH (Himmelmann 1998: 319)
    a. *Bill fixed the picture **right** above the board near Mary's photograph*

    b. *the car crept along (right) **on** the main road*

    c. *the car crept along (*right) **on** three cylinders*

According to Himmelmann, the specifier *right* and the adjunct *near Mary's photograph* are both possible with the Adp-phrase *above the board*, but would not be possible if the Adp belonged to what he considers to be a grammatical Adp, as shown by (59c), which illustrates a grammatical use of *on* while (59b) illustrates a lexical use of this same Pr.

To show that one can treat Adps and conjunctions as one and the same word-class, Jaworska (1994: 3305) cites the following examples:

(60)   *it was the baby that was in the box*

(60′)   *it was **after** the music stopped that he spoke*

(61)   *the baby was **right** inside the box*

(61′)   *he spoke **right** after the music stopped*

Granted that the first one among these two tests could apply to languages other than English, the fact remains that even in English things are not always so regular, and there is an important difference between Adps and conjunctions in this respect. Thus, certain Adps can have the same syntactic behaviour as conjunctions: in addition to being a noun-phrase, a pronoun, or an Adp-phrase (cf. Section 2.3.2.2.c) as in (62), the term governed by such Adps can be a clause, especially in the interrogative

mood in a language like English. This is illustrated by (63′) for *about*, and (64′) for *on* (cf., also, example (73b) in Section 2.3.3):

(62)   *Adam has been living here **since** before the war*

(62′)   *Adam has been living here **since** the war ended*

(63)   *he is thinking **about** this subject*

(63′)   *he is thinking **about** why this happened*

(64)   *they disagreed **on** the trial*

(64′)   *they disagreed **on** what to do*

However, the reverse is not true. Consider (65):

(65)   *I was happy **when** he came*

In this sentence *when he came* cannot be replaced by *when this*. The reason for this impossibility is not hard to find: a conjunction only governs a clause (except, of course, that in many languages some conjunctions (for example English *since* as in (62) and (62′) are homophonous with Adps). Consequently, although there is a syntactic equivalence, since the governed terms of Adps as well as those of conjunctions function as core or peripheral complements, Adps should be considered as distinct from conjunctions because (i) on the one side, conjunctions cannot govern nominal elements and (ii) on the other side, clauses are only one type of Adp-governed term; in addition, some of them are in fact nominal, as in *he is indulgent towards who doesn't lie*, where *who = one who*.

One can add that from the morphological point of view, the difference between Adps and circumstantial (cf. Section 5.3.1) conjunctions is clearly made in languages which form the latter by adding to the former a subordination morpheme: for example, adding *que* to the French Prs *avant*, *après*, *pour*, *dès*, one gets the circumstantial conjunctions *avant que*, *après que*, *pour que*, *dès que*; adding *še* to the Israeli Hebrew Prs *mifneː* "because of", *bišviːl* "for", *lefi* "according to", one gets the circumstantial conjunctions *mifneːše* "because", *bišviːlše* "in order that", *lefiše* "according as".

4.1.3.2.b **Verbal nouns: the notion of "deranking"**   Although clauses may be governed by Adps as illustrated by such examples as (63′) and (64′), admittedly exhibiting a particular type of subordinate clause, depredicativized nominalized structures, in which markers of the predicative function of verbs are reduced or

absent, are crosslinguistically the non-verbal equivalents of subordinate clauses. Languages that do not have verbal nouns or use them in special contexts must resort to a finite subordinate form. This is the case for most Balkan languages, where the infinitive no longer exists or has only restricted uses, and also for Semitic languages, like Arabic, or the Hebrew equivalent of *before leaving*, namely *lifneše hu nosea*, literally "before that he leaves". As opposed to that, in languages possessing a category of morphologically distinct verbal nouns, including infinitives, these are often governed terms of Adps, as in French *pour écrire* "in order to write", *à en juger d'après ses aptitudes* "judging by his skills", *à le voir* "when seeing him". Certain Adps cannot be directly combined with an infinitive. Thus, the French equivalent of *before leaving* is *avant de partir*, where *de* cannot be left out. Languages without an infinitive do not, of course, have the structure studied in this section.

Sardinian makes a wide use of the Pr + infinitive structure, as shown by (66), where the Adp-phrase functions as a topic equivalent to a hypothetical clause in English:

(66)   (Logudorese) Sardinian (Romance, Indo-European, Italy) (Floricic 2003: 289)
     a   lu contare paret   faula
     at   it   tell   seem.3SG.PRS lie
     'if I told it, it would sound like a lie'

Languages from very different families exhibit comparable structures. In Supyire, for instance, purpose clauses are often marked by the subjunctive auxiliary *sí*, which, interestingly, has the same form as the narrative auxiliary, probably (cf. Carlson 1994: 600) because both types of clauses are associated with lowered finiteness (in subordinate clauses because tense and participants' identity can be read off the main clause or the speech situation, and in narrative clauses because narrators rely on the hearers' cognitive inertia regarding the continuity of things recounted). But Supyire purpose clauses can also be marked by a verbal root bearing the indefinite locative nominal prefix *ta-* and governed by the Po *i/e*. This type of purpose clause, which appears only as a peripheral complement of verbs of motion like *kàrè* "go", is illustrated in (67):

(67)   Supyire (Gur, Niger-Congo, Mali) (Carlson 1994: 588)
     u   a   kàrè lwɔɔ   tá-cya-ge   e
     s/he PFT go   water LOC-fetch-CL2.SG   to
     's/he went to fetch water'

Such examples as (66) and (67) might suggest that verbal nouns governed by Adps (and equivalent to subordinate clauses like the above-mentioned

sí-marked subordinate clause in Supyire) have lost all verbal characterisrtics by the very fact that they are Adp-governed. Some authors, using the notion of deranking introduced in Stassen (1985), claim that nominalized (participial, gerund, converbal) clauses are characterized, as opposed to bona fide subordinate clauses, not only by reduction of tense–aspect–mood and person-marking, but also by what Cristofaro (2003: 82, 256, passim) refers to as two "typical nominal properties on the dependent verb", both characteristic, as "repeatedly [sic] pointed out" in her book, of "nominal morphology", namely "coding of arguments as possessors" and "case-marking/adpositions [...], a distinguishing property of nouns with respect to verbs". Even lumping together Adps and case marking, contrary to what is done in the present book, as one and the same device, one can hesitate to view them as typical nominal morphology, when one recalls that Adps also govern Adp-phrases (cf. Sections 2.3.2.2.c and 4.1.3.2.a) and subject–predicate associations (cf. 4.1.3.1), which, as shown by examples (51)–(54) above, are not typically nominal structures.

Moreover, nominalized verbs governed by Adps do not always lose their verbal features. The infinitive can be inflected for person. An interesting example is the famous conjugated infinitive of Portuguese, Galician, or Sardinian. Sentences (68a–b) are examples where, in Portuguese, after Prs like *até* "until" or *depois de* "after", the conjugated infinitive is obligatory:

(68) (Brazilian) Portuguese (Teyssier 1976: 235)

    a. *até   receberes   a   resposta, não   saias*
       until receive.INF.2SG ART.F response NEG exit.SUBJ.2SG.PRS
       de   casa
       from house
       'don't get out from your house until you receive the response'

    b. *depois de meus   pais   terem   vendido*
       after of POSS.1SG.PL parent.PL AUX.have.INF.3PL sold
       a   casa, tivemos   de deixar a   cidade
       ART.F house have.PST.1.PL to leave   ART.F city
       'after my parents sold the house, we had to leave the city'

Thus, the notion of "deranking" requires some qualification and some caution before being used.

4.1.3.2.c **Adp-phrases and subordinate clauses** Adp-phrases have some points in common with subordinate clauses. The most obvious one is that both of these two syntactic devices have the same kind of relationship with their heads. Just as there are adverbial clauses, there are peripheral (in semantic terms, circumstantial) Adp-phrases. Just as there are complement

clauses, there are Adp-phrases that perform the object function (cf. Section 4.1.2.3.b) and there are Adps that govern an object (cf. Section 4.1.2.5). And just as there are relative clauses, there are adnominal Adp-phrases, a largely unheeded phenomenon so far (cf. Section 4.2).

However, Adp-phrases have specific properties. Even though they are equivalent to subordinate clauses in syntactic functions, especially as peripheral complements, the morphological characteristics of the terms they govern, as studied in Sections 2.3.2.2.a–c, 4.1.3.1, and 4.1.3.2.a–b, are more varied than those of subordinate clauses as marked, in many languages, by conjunctive and relative morphemes, and very different from them.

4.1.4 *Unmarked core and non-core complements*

We saw in Section 2.3.1.2 that there are ungoverning Adps, occurring in contexts in which governed terms are retrievable. Another situation exists which is different, even though it seems to be, again, a case of ungoverning Adps: in many languages, core and non-core complements are often not marked by Adps or other tools, however widely these tools are used in the languages in question. Thus in Japanese, the subject, object, and attributive markers—respectively *ga*, *o*, and *ni*—are often omitted in oral speech, especially when there is no doubt about the way participants interact. In other cases, they remain necessary. However, marking core functions is not a sufficient reason not to be omitted. Another, maybe more compelling, reason is **phonetic thickness** (on this notion, cf. Hagège 1975: 61–3, 73, 79, 311): in Japanese, core function markers may not be omitted when they mark nouns which are phonetically too light, like *e* "image".

Unmarked non-core, that is spatio-temporal and notional, complements are also frequent. As far as spatio-temporal complements are concerned, this applies both to static and non-static ones. In Swahili, for instance, the Po *ni*, which can have these two uses, is obligatory, when the meaning is spatial, after many nouns, such as *nyumba* "house" (as in *nyumba-ni kw-etu* (e.g. house-at CL17-1PL.POSS.CL2) "in our house"), *mji* "town", *pwa* "beach", *mpira* "soccer field", *nji* "way", *jiko* "kitchen", even abstract words like *kazi* "work" (e.g. *kazi ni* "at work"). But *ni* is always omitted after proper nouns, as well as after such borrowed words as *baa* "bar", *gereji* "garage", *jela* "jail", *posta* "post-office" *sinema* "movies", *stesheni* "station", and also, but in Zanzibar only (not in continental Tanzania), after *hospitali* "hospital", *maabara* "laboratory", *maktaba* "library" *markiti* "market", *skuli* "school" (in Tanzania, "market" is *soko*, from Arabic *suq*, "school" is *shule*, from German *Schule*, and both may be followed by *ni*, even though they are borrowed words). *ni* is also omitted

when its omission, since it eschews class agreement, allows lighter noun-phrases. Example (69) is an example from oral Swahili with a place name not governed by *ni*:

(69) SWAHILI (Racine-Issa 1998: 123)
     barabara y-a   *kiwanda cha*   *maziwa*
     road   CL9-CONN.ADP factory   CONN.ADP.CL7 milk
     'on the road to the dairy'

Other languages also use bare non-static spatial complements. Example (70) is from Jabêm:

(70) JABÊM (Oceanic, Eastern Malayo-Polynesian, Austronesian, Papua New Guinea) (Bisang 1986: 131)
     ngac tonang ge-meng   *malac*
     men DEM   3SG-kommen village
     'this man comes to the village'

It should be possible to convert unmarked adverbial complements, since they seem to behave like ø-marked objects, into the subject of passive verbs. This structure, although very rare, is not unattested. For example, in the Sagay dialect of Khakas, we find:

(71) KHAKAS, Sagay dialect (Turkic, Altaic, Russia) (Erschler 2007: 4)
     a. *pu*   *šyl Moskva-da*   *šur-t-am*
        PROX.DEM year Moscow-INESS live-PST-1SG
        'I lived in Moscow this year'
     b. *pu*   *šyl Moskva-da*   *šur-t-al*   *par-yan*
        PROX.DEM year Moscow-INESS live-PST-PASS AUX-1SG
        'this year was lived by me in Moscow'

Some types of unmarked adverbial complements are quite common in most languages. Among them are those expressing time periods, which occur in association with words referring to past or future dates, or with demonstratives and other determiners, that is specifications that might be taken to be detailed enough to make the presence of an Adp less necessary. Such associations are used to locate situations in time, as in example (72), and to express time duration, as in example (73):

(72) *he will come **next week***

(73) *ils ont travaillé **deux heures***

Another interesting situation in which adverbials are unmarked is what I have called *cultural implicitness* (Hagège 1982: 117–18), namely the fact that one considers certain activities, either universally by the very meaning they express, or, locally, by their recurrent, traditional, or routine occurrence, as so obviously linked with some place that it is not deemed necessary to specify by an Adp the location in, or the move toward, that place. Or to put it another way, many place names have a daily life, ecological, or professional relevance which makes it useless to mark them as place names by an Adp.

Thus, in Thai one does not usually mark the spatial complement of a verb of movement, which is treated as implicitly referring to a spatial goal, hence *pay bâannɔ̀ɔk* "go (to [the]) countryside"; nor does one link the notion of putting and that of a place where something is put by an Adp which would specify what is implied by the contents of the verb and the noun referring to these notions. This is why the ordinary way of saying in Thai "put (something) into a bag" is *sày thŭng* "put bag". Interestingly enough, this was exactly what European-minded Thai elites were reluctant to accept, hence the 1862 edict by King Rama IVth (cf. Section 2.2.2.4.e) prescribing that one should use the Pr *nai* between these two words (Diller 1993: 397–8).

In a comparable way, in Martinique Creole, when referring to customary occupations, like being at school, one says:

(74)   MARTINIQUE CREOLE, Martinique, France (Jeannot-Fourcaud 2005: 128)
    mã   lekɔl
    1SG   school
    'I am at school'

Similarly, in many African, Oceanic, Amerindian, etc., languages spoken by forest peoples, hunters, fishermen, mountain dwellers, it is usual to say something like "go (to) bush", "leave (for) hunting", "wait (with) fish-net", "be heading (towards) seashore"; sometimes, the unmarked adverbial complement may take on an idiomatic meaning. Consider, for instance, (75) and (76):

(75)   TARIANA (Aikhenvald 2003: 155)
    maypuku-pe   na-wapeta-sina
    fish.net-PL   3PL-wait+CAUS-REM.PST.INFR
    'they waited (for fish with) fish-net'

(76)   MOORÉ (Gur, Niger-Congo, Burkina Fasso) (Kaboré 1980: 300)
    a. *bˌ   kíngà   wéoogó*
       3PL   go.PST   bush
       'they have been to the bush'

   b. *bₗ   kíngà   wéoog-ɪ*
      3PL go.PST bush-in
      'they have been to the bush'

   c. *à   kɪɪ   róogó*
      3PL enter.PST house
      'he has entered into prison'

   d. *à   kɪɪ   róog-ɪ*
      3SG enter.PST house-in
      'he has entered into the house'

Example(75) refers to the customary activity of net-fishing, and (76a) to such bush customary activities as gathering plants, cutting wood, cropping, while (76b) refers to the fact that they have gone to a certain place, no matter for what purpose. Similarly, while (76d) says that someone has entered a house, (76c) has an idiomatic meaning: it refers to a house with a precise destination, here a prison.

What is true of places of customary activity also applies to important places where people are used to gather, and to inherently locational nouns. An Amerindian example is Tariana, an Oceanian one is Mokilese; they are illustrated, respectively, by (77) and (78). African examples are Baule, where, as shown by (79a-b), while common nouns of places are marked by a spatial Po, names of cities need not be, and Mooré, in which, when referring to a move to the capital of Burkina Faso, one says (80a) rather than (80b):

(77)   TARIANA (Aikhenvald 2003: 155)
       papuri-nuku na-wa   na:-pidana
       Papuri-TOP 3PL-enter 3PL.go-REM.PST.REP
       'they came onto the Papuri river'

(78)   MOKILESE (Oceanic, Eastern Malayo-Polynesian, Austronesian, Micronesia) (Harrison 1976: 209)
       ih mine Hawaii (3SG stay Hawaii)
       'he is in Hawaii'

(79)   BAULE, Nanafwe dialect (Kwa, Niger-Kongo, Côte d'Ivoire) (Bohoussou et Skopeteas 2005: 160–1)
       a. *Kòfí ó   swà-n   sù*
          Kofi be.located house-ART above
          'Kofi is above the house'

    b. *Kòfi ó*   *Ábíjân*
        Kofi be.located   Abidjan
        'Kofi is in Abidjan'

(80)   MOORÉ (Kaboré 1980: 297)
      a. *m̀*   *dábdà*   *Wáogdgò*
         1SG   go.PRGR.PRS   Ouagadougou
         'I'm going to Ouagadougou'
      b. ** m̀ dábdà Wáogdg-1*

Another case is the alternation between marked and unmarked adverbial complements. In French adpositional complements governed by such Prs as *à, de, en,* known to have a broad semantic content, are more tightly linked to verbs than those governed by other Prs, just as governed terms are more tightly linked to cases than to Complex Adps. Consider (81):

(81)   FRENCH
      a. *il habite à Paris*
      b. *il habite Paris*

Both (81a) and (81b) mean "he lives in Paris". This semantic equivalence between Adp and absence of Adp does not concern semantically broad Adps exclusively, and is far from being a characteristic solely of the French language. To mention English as just one further example, let us recall that one can say *to debate a subject* or *to debate about a subject,* as well as *to conceive something* or *to conceive of something as,* etc.

     Finally, there are languages in which only some adverbial complements are marked. Thus, Skou (West Skou, Indonesia) and Ono (Trans-New Guinea, Papua New Guinea) both mark only instruments, while other adverbials, including spatial ones, appear as bare Noun-phrases (Donohue 2006: 384–5).

4.2 Adp-phrases as adnominal complements

Verbal and adjectival predicates are not the only attested heads Adp-phrases depend on. Another syntactic function of Adp-phrases is to depend on nouns. As far as I can say, no book-length or important and detailed work in typology has so far been devoted to this structure. Thus, the study I am proposing here might be among the first to recognize the importance of this syntactic fact, provided one recalls that markers of adnominal phrases, other than case-affixes, are identified as Adps in a language only if this language also has other Adps, marking complement types other than adnominal.

The very fact that we observe the dependency between Adp-phrases and nouns as being one of the syntactic contexts in which Adp-phrases occur should suffice for dealing with such a phenomenon in the present book, even though some might object that the essential role of Adps is to mark core and adverbial complements, not adnominal complements, and consequently might deny words like English *of* the status of an Adp. I have made a different choice. Two situations can be observed and will be studied in this section. In one of them, the dependency of Adp-phrases with respect to a noun is not especially marked, except by their very position, either after or before the noun (4.2.1). In the other situation, Adp-phrases depending on nouns are linked to them by a connective Adp (4.2.2). This is a second reason for treating Adp-governed noun-phrases depending on nouns in the present book: they appear, when occurring in this context, as one of the possible governed terms of a particular kind of Adp, namely connective Adps.

4.2.1 *Adnominal Adp-phrases directly associated, as dependent elements, to nouns*

Two cases will be examined here. In one of them, Adp-phrases are various formal and semantic types of adverbial complements that depend on nouns instead of depending on verbal predicates (4.2.1.1). In the other case, Adp-phrases are the result of the conversion of core participants of a predicative structure into dependent elements appearing within a non-predicative structure (4.2.1.2).

4.2.1.1 *Various formal and semantic types of Adp-phrases directly depending on a noun(-phrase)*   Consider such examples as:

(82)   ENGLISH (Foskett 1991: 42)
     a. *an **out of work** teacher*
     b. *an **after dinner** speech*
     c. *an **off the cuff** remark*

The position of the Adp-phrases *out of work, after dinner,* and (American slang) *off the cuff* is that of adjectives in English, and they function in the same way as adjectives: they may exhibit adjectival features, such as gradability, for example in:

(83)   ENGLISH (Foskett 1991: 42)
     *a very **out of the way** place*

Thus there is no doubt on the dependent status of these Adp-phrases with respect to the N they precede. But more commonly, Adp-phrases in this

construction are postposed to the noun they qualify. Postposed nominal adjuncts may be confused with Adp-phrases depending on verbs, that is verbal adjuncts, which, like them, are often also postposed to their head. But a test makes it possible to distinguish the two types of dependency: verbal adjuncts can be fronted, whereas nominal adjuncts cannot. For example, (84a) cannot be replaced by (84b) if *on the table* is a nominal adjunct:

(84)   English (Foskett 1991: 42)
      a. *he saw the **book on** the table*

      b. *on the table, he saw the book*

Noun-dependent and postposed Adp-phrases are often spatial or temporal, as in (85a–g), but other kinds of nominal adjuncts are also attested, like those in (85h–j):

(85)   ENGLISH
      a. *the **flowers in** the garden*

      b. *your **return from** Venice*

      c. *the **dustbin under** the desk*

      d. *the **lands beyond** the ocean*

      e. *his **departure for** Oxford*

      f. *my **arrival in** Paris*

      g. *his **mood in** that moment*

      h. *her **answer to** our queries*

      i. *a **house with** green shutters*

      j. *a **book about** adpositions*

In these examples we see various spatial and temporal Adps governing noun(-phrase)s and making them nominal adjuncts; in certain cases, this structure is the only possible one: thus, a direct adnominal complements in (85a), like *?the garden flowers* is rare. In (85) Adp-phrases other than spatial and temporal are destinative in (85h), comitative-proprietive in (85i) (cf. also Hebrew *pakid ʿim nisayon* "(a) clerk with experience"), pertentive in (85j).

    Other languages exhibit the same phenomenon, for example French, as shown by (86a) and (86b), translations of (85d) and (85j) respectively, with the Compound Adps *au-delà de* for *beyond* and *au sujet de* for *about*, German, as shown by (87), Zenaga (where "eleven Xs" is expressed by "eleven" + an inessive Adp-phrase, meaning literally "ten and one in X"), Vietnamese and Ambrym, illustrated, respectively, by (88), (89), and (90):

(86) FRENCH
 a. *les terres au-delà de l'océan*
 b. *un livre au sujet des adpositions*

(87) GERMAN
 a. *die Birnen in der Schale*
    'the pears in the bowl'

 b. *der Schlüssel im Schrank*
    'the key in the cupboard'

 c. *das Glassplitter in der Hand*
    'the glass splinter in the hand'

 d. *die Autos auf der Strasse*
    'the cars on the street'

 e. *die Fabriken von Ford im heutigen Frankreich*
    'the Ford factories in today's France'

 f. *der Dank der Sportler an den Staat für die Hilfe*
    'the sportsmen's thanks to the State for its help'

(88) ZENAGA (Berber, Afro-Asiatic, Mauritania) (Taine-Cheikh 2006: 136)
 märäg əd yu'n däg uđan
 ten and one in dogs
 'eleven dogs'

(89) VIETNAMESE (Viet-Muong, Mon-Khmer, Austro-Asiatic, Vietnam)
 (Thompson 1965: 276)
 cái bàn trong buông ăn
 CL table inside room eat
 'the table in the dining-room'

(90) AMBRYM (Oceanic, Eastern Malayo-Polynesian, Austronesian, Vanuatu)
 (Paton 1971: 71)
 wantɛn nɛ rohɔan
 man for steal
 'thief'

wantɛn nɛ "man for" often precedes verbs, in this language, to form nouns referring to people's activity, but (90) is not a nominal compound; it is the association of a head noun and a dependent Adp-phrase.

The same noun may function as head for more than one Adp-phrase. In addition to the German example with an attributive-illative and a motivative (cf. Section 5.3.1) in (87f), an English example can be cited:

(91)   ENGLISH (Zwicky 1992: 374)
        a distinction in the theory between idioms and constructions

In associations between a head noun and an Adp-phrase, it is irrelevant whether the head noun itself functions as S, O, or something else. For instance, in

(92)   *we could see peak beyond peak,*

there is a group *peak beyond peak* in which the head of a prepositional phrase *beyond peak*, namely the preceding noun *peak*, which in this context is articleless, functions as the object of the verb *see*. Similarly, the group [head noun + dependent Adp-phrase] may have various functions, for example it may depend on a noun as in (93) or function as an adverbial complement as in (94):

(93)   *the professor from Harvard's opinions*

(94)   MANDARIN CHINESE (Hagège 1975: 264)
        tāmen yī   ge   gēn   yī   ge   de   lái   le
        3PL   one CL   with one CL   SUB   come   NSAM
        'they came one after the other'

Chinese *yī ge gēn yī ge*, as well as English *one after the other*, or *art for art's sake*, could be analysed as complex Adp-phrases in which the first elements, namely *yī ge* or *one* or *art*, are appositions to the subject of the sentence. A more satisfying analysis treats these first elements as heads of the Adp-phrases *gēn yī ge*, *after the other*, and *for art's sake* within a syntactic unit with an adverbial function.

Finally, just as many languages have unmarked adverbial complements (cf. Section 4.1.4), unmarked adnominal complements with an adverbial spatio-temporal meaning are frequent. An English example is *the road home.*

4.2.1.2 *On recognizing noun-dependent Adp-phrases as a genuine syntactic phenomenon* In the structure just illustrated above, nothing, except juxtaposition itself, points to the dependency relationship between the head noun and the Adp-phrase. This might be one of the reasons why this structure has not only been neglected, so far—in typology as well as in works on syntax generally—but is also frowned upon by purists. On the assumption that verbal dependency is the only "real" syntactic dependency for an Adp-phrase, they suggest that a verb, in finite form or not, should be inserted here, having the effect of treating the Adp-phrase as an adverbial complement whose head is a verbal predicate within a relative, or participial, clause.

Such a treatment was, and still is, for example, recommended by some Hungarian grammarians, who, referring to case-marked adverbial complements (no different, in this respect, from Adp-marked ones), deem it "incorrect" to use expressions like (95a) and suggest (95b) instead. Puristic considerations of the same kind led Finnish grammarians, when "modernizing", in the seventeenth century, Mikael Agricola's (sixteenth-century) Finnish, to recommend the genitive instead of a spatial case which had long been usual in Finnish, and therefore to reject (96a), replacing it with (96b):

(95)   HUNGARIAN (Sauvageot 1972: 375–6)

    a. *a   párt   a   kormány-on*
       ART party ART government-at
       'the governing party' (lit. 'the party at the government')

    b. *a   kormány-on   levő   párt*
       ART government-at being party
       'the governing party' (lit. 'the government-at being party')

(96)   FINNISH (Sauvageot 1972: 374)

    a. *puu-dh   kedho-lla* (Agricola's Gospel, 1548)
       tree-PL countryside-INESS (lit. 'trees countryside-in')
       'the trees in the countryside'

    b. *ked-on   puu-t*
       countryside-GEN tree-PL (lit. 'countryside-of trees')
       'the trees in the countryside'

Against this reluctance to recognize noun-dependent Adp-phrases as a genuine linguistic phenomenon, one can mention tests which make it possible to prove their specificity. From (97a), for example, it is possible to build two structures (97b) and (97c), respectively called cleft and pseudo-cleft in classical transformational grammar, but not (97b′) or (97c′), although many English speakers might, unlike Shopen, find these sentences acceptable:

(97)   ENGLISH (Shopen 1972: 105)

    a. *we have a reservation on the room*

    b. *it was a reservation on the room that we needed to have most*

    c. *what we need to have is a reservation on the room*

    b′. *it was a reservation that we needed to have most on the room*

    c′. *what we need to have on the room is a reservation*

The specificity of noun-governed Adp-phrases does not mean that governed terms inside them must necessarily behave as islands. In fact, they can trigger,

for example, peninsula-like phenomena such as agreement (cf. Hagège 1988). Consider (98):

(98)   ENGLISH (Zwicky 1993: 378)
    a.   *all tables are* . . .
    b.   *all furniture is* . . .
    a'. *all **of** the tables are* . . .
    b'. *all **of** the furniture is* . . .
    b''. *all **of** this furniture is* . . .

The fact that in (98a'–b'–b'') elements inside an Adp-phrase agree in number with elements outside it, and thus behave as peninsulas, does not put into question the identification of the *of*-governed complement here as an Adp-phrase. It must be stressed, however, that such phenomena are rarely found with Adp-phrases other than those with a connective Adp which has a partitive meaning.

Finally, it is interesting to note a difference between two genetically and typologically close languages as regards the extent to which noun-dependent Adp-phrases are used. Although English provides many examples proving, like those just cited, that noun-dependent Adp-phrases are a genuine syntactic phenomenon, the use, observed as an increasing tendency in English, of structures which are different from Adp-phrases although syntactically and semantically equivalent to them, namely participles as parts of post-nominal modifiers in sentences, is often, if compared with synonymous German sentences, the preferred option, as shown by (99a'), or even the only possibility, as shown by (99b') and (99c'):

(99)   GERMAN AND ENGLISH (König and Kortmann 1991: 121–2)
    a.   *ein Film **mit** Bruce Lee*
    a'. *a film starring Bruce Lee*
    b.   *die Texte **zu** den agbebildeten Pflanzen*
    b'. *the texts accompanying the photographs of plants*
    c.   *die Antwort **auf** die Frage **an** den Menschen von heute*
    c'. *the answer to the question facing modern man*

Having studied the syntactic phenomenon of adnominal Adp-phrases in the contexts where they are directly dependent on their head noun, I will now examine the situation of those that are related to it by a connective morpheme.

4.2.2 *Adnominal Adp-phrases linked to a head noun by a connective morpheme*

The strategy examined in Section 4.2.1 is not the only possible or conceivable one. Instead of the unmarked and direct dependency—a marked one if we recognize word order as a function marker—it is possible to use, in order to link an Adp-phrase with a head noun (thus putting the former in the latter's dependency) the very same linker whose various forms have been studied in Section 3.4.6.5 as those tools which mark the dependency between two nominal elements. I will study, in this section, the phenomenon itself by which adnominal Adp-phrases are linked to their head noun by a special morpheme (4.2.2.1), then the conversion of a predicative structure into a non-predicative one by the use of an adnominal Adp-phrase (4.2.2.2).

4.2.2.1 *Linking adnominal Adp-phrases with their head noun by a special morpheme or by a connective Adp*   The linker may be homonymous with other tools, in particular adverbial-marking Adps, used, for example, for a cause in French as in (100), a non-spatial abessive or an agent in English as in (101), or an agent in German as in (102): we know that it is originally a partitive marker in many languages, including those of the Romance family:

(100) FRENCH
       *ils étaient épuisés **de** fatigue*
       'they were exhausted (with tiredness)'

(101) ENGLISH
       *it is very kind **of** you to invite her*
       *one is beloved **of** all, the other one is forsaken **of** God and man*

(102) GERMAN
       *sie   wurde **von** ihm   getötet*
       3SG.F.NOM was   by   3SG.M.DAT killed
       'she was killed by him'

The use of the connective Adp in which I am interested here is more specific. Certain languages have grammatical tools that seem to do the job of linking an Adp-phrase and its head noun, but turn out not to be exactly connective Adps. Such is the case of the Tagalog linker *ng* and of an often mentioned Turkish morpheme, *ki*, which constitutes one of the characteristics of this language. I will present these facts now:

(103) TAGALOG (Schachter and Otanes 1972: 119, 123)
       a. ***nasa mesa ng** libro*
          on   table LM book
          'a book on the table'

   b. *libro ng **nasa** mesa*
      book LM on   table
      'a book on the table'

   c. *nobela ang   bago ng libro ng **nasa** mesa ng   mababa*
      novel   TMK new   LM book LM on   table LM low
      'the new book on the low table is a novel'

(104) TURKISH (Halbout and Güzey 1992: 61, 73, 101, 121, 161, 257, 297–8,
       333, 419)
   a. *Türkiye-**de**   bir yabanci*
      Turkey-INESS one foreigner
      'a foreigner in Turkey'

   b. *bir ögrenci-**den**   mektup*
      one student-ABL letter
      'a letter from a student'

   c. *ağaç-lar iç-i-n-**de**   bir lokanta*
      tree-PL inside-3SG.POSS-LIG-INESS one restaurant
      'a restaurant in the trees'

   d. *Boğaz-**da**   tekne **ile**   gezinti*
      Bosporus-INESS boat   COM row
      'a sail on the Bosporus'

   e. *ev   sahib-i   hanım zor   durum-**da***
      house owner-its female difficult plight-INESS
      'a housewife in a difficult plight'

   f. i. *ev-**de**-ki*   *tabak-lar*
          house-INESS-*ki* plate-PL
          'the plates (which are) in the house'

       ii. *deniz kıyı-sı-n-**da**-ki*   *sandal-lar*
           sea   board-3SG.POSS-LIG-INESS-*ki* small.boat-PL
           'the small boats (which are) on the seashore'

       iii. *bugün-**kü** iş   zor,   yarın-ki*   *daha kolay*
            today-*ki* work difficult tomorrow-*ki* more easy
            'today's work is hard, tomorrow's is easier'

       iv. *burada-**ki**-n-i   gör-dük-ten*   *sonra*
           here-*ki*-LIG-ACC see-GER.MK-ABL after
           'after seeing the one which was here'

Examples (103a) and (103b) show that in Tagalog, as in English, the Adp-
phrase may either precede or follow the head noun, although there is a

tendency to prefer the second of these word orders when there are, as in (103c), modifications which make the modifying phrase rather long. The Turkish examples in (104) may be divided into two groups:

(i) (104a–e) are examples of case-marked adverbial complements depending directly on nouns, without a linker: (104a) and (104b) contain adverbial phrases marked by a case affix, inesstive in (104a) and ablative in (104b); while in (104a–b) the adverbial complements precede their head noun in conformity with the characteristic Turkish word order, this is not the case in (104e), in which the link between them is looser, and the adverbial complement appears as referring to a special circumstance, presented as non-inherently characteristic of the person referred to. Only in (104c) and (104d) do we find Adp-phrases depending on nouns: *iç-i-n-de* in (104c) is a Complex Adp: note that it does not require the genitive on its governed term like the *iç-i-n-de* in Chapter 2, example (57), because its governed term refers to trees in the plural, that is to say in general, not to a specific place; (104d) contains two adverbial complements subordinated to a noun: the first one is marked by an inessive case affix, and the second one by the morpheme *(i)le*, which I consider as a Po although it is treated, rather vaguely, as a "suffix" or a "particle" in some handbooks (cf., for instance, Halbout and Güzey 1992: 71);

(ii) (104f.i–ii) are examples of the use of the morpheme *ki*. We note that being in the house and being on the seashore are situations that are presented as characteristic of the plates and the small boats respectively. In these sentences as in other contexts where it occurs, *ki* is a nominalizing tool, equivalent to an English relative clause, and translatable as "the one of" or "the one who or which". *ki* may thus be suffixed to space or time adverbs, as in (104f.iii), and the *ki*-marked element may function as a noun-phrase depending on a nominal subject, as illustrated in (104f.iii), or, in (104f.iv) for example, as an object; we have also seen *ki* used in a context of case heaping in Chapter 2, example (45).

Although *ki* can nominalize a case-marked adverbial complement and thus make it dependent on a N, as in (104f.i–ii), there do not seem to be many examples of Adp-phrases proper being linked by *ki* to a head-noun. Only in (104c) and (104d) do we find noun-dependent Adp-phrases, which are not linked to the head noun by *ki*, but are linked directly. We may deduce from this data that Tagalog *ng* and Turkish *ki*, although they can function as tools linking Adp-phrases to the noun they depend on, have wider uses, and are not specifically connective morphemes. This allows us to come closer to uses

which are really those of connective Adps. In certain languages it is a bona fide connective Adp which is used to link Adp-phrases with their nominal head, as is shown, for instance, by Japanese, Swahili, Basque, and Mandarin Chinese. In Japanese, Swahili, and Souletin Basque, we find examples like (105), (106), and (107) respectively:

(105)   JAPANESE
    Tōkyō kara **no**   *shuppatsu*
    Tokyo from CONN.Adp departure
    'the departure from Tokyo'

(106)   SWAHILI (Racine-Issa 1998: 45)
    kisa ch-a   *wa-nyama w-a*   *pori-ni*
    tale CL7-CONN.Adp PL-animal CL2-CONN.Adp bush-in
    'the tale of the animals in the bush'.

(107)   SOULETIN BASQUE (Bottineau 2007: 172)
    lotsa gabe **ko**   *emakume bat*
    shame without LOC.GEN woman   one
    'a shameless woman'

Example (105) contains the Japanese connective Adp *no*, example (106) two occurrences of the Swahili connective Adp *a*, combined with class markers of classes 7 (with which it marks an adnominal nominal complement), then 2 (with which it marks an adnominal postpositional phrase); and in example (107) we find a postpositional phrase with the Po *gabe* "without", connected to the head noun by one of the two Basque connectors, the connective Po *ko*, which is the locative genitive of this language, as opposed to *ren*, the Basque possessive genitive, illustrated by examples (44) and (59) in Chapter 2.

Of all the languages on which I have information, Mandarin Chinese seems to be the one with the clearest examples of connective Adps used to mark the subordination of an Adp-phrase to its head noun-phrase. Consider (108):

(108)   MANDARIN CHINESE (Hagège 1975: 333–41)
    a. *xiānsheng bù yòng de xuésheng de shū*
       professor NEG need *de* student(s) *de* book(s)
       'the students' books which the professor does not need'

    b. *yǐ   Xizang* **de** *xīwàng zuì dà*
       ROB Tibet *de* hope   most big
       'the biggest hopes are those that are set on Tibet'

    c. *dìguózhǔyì guójiā **zhōng** de yī ge*
       imperialist country among de one CL
       'one of the imperialist countries'

d. *sānshí lái   nián **qián**   **de** shì*
   thirty roughly year before *de* event
   'an event which happened about thirty years ago'

e. *yī   fēng gěi   Jun **de** xìn*
   one CL ATTR Jun *de* letter
   'a letter for Jun'

f. *cūn-li   qíngxing*
   village-in situation
   'the situation in the village'.

Example (108a) shows that the Chinese connective Pr *de* (or *zhī* in Classical Chinese) is used to mark the dependency of an adnominal complement towards a noun-phrase, whether this complement is itself a noun-phrase or a (subject +) predicate clause, which thus becomes the equivalent of a relative clause, and generally occurs, in Mandarin Chinese, before the other qualifier when both appear, as we see in this example. In (108b) we observe an adverbial phrase, marked by the roborative Pr *yǐ* and converted by *de* into an adnominal qualifier of the noun *xīwàng*. Examples (108c) and (108d) contain a spatial and a temporal adnominal qualifier, marked, respectively, by the Pos *zhōng* "among" and *qián* "ago". Example (108e) shows a head noun with two dependent elements—a classifier and an attributive Adp-phrase—itself subordinated to this noun by *de*. Finally, (108f) exhibits a spatial Adp-phrase, marked by the Po *li* "in", and not linked by *de* to the noun it depends on. Such structures are frequent in Chinese, and the cohesion between the Adp-phrase and the noun may even go further, resulting into idiomatic compounds, like *mén-wài-hàn* (lit. speciality-outside-(an)individual(who.is) "incompetent person", *mǎ-hòu-pào* (lit. horse-behind-(a)cannon(which.arrives) "late-comer", *wèng-zhōng-biē* (lit. vat-inside-(a)turtle(which.is) "it's as good as settled".

In conclusion, the example of Chinese shows that when an Adp-phrase functions as an adnominal adjunct and is linked to its head noun(-phrase) by a connective Adp, its behaviour, from the morphological and syntactic viewpoints, is no different from that of any adnominal complement. Furthermore, these facts confirm that the Adp remains an Adp and does not become a mere linking tool when the Adp-phrase qualifies the head noun directly, that is without a linker, as seen in Section 4.2.1.

4.2.2.2 The behaviour of Adp-phrases in the conversion of a predicative structure into a non-predicative (mostly nominal) one   The conversion of a predicative structure into a non-predicative one by nominalization is an important syntactic phenomenon of languages. When such a depredicativizing operation occurs,

some verbal characteristics are kept, while others are lost. For example, the verbal nouns resulting from this nominalization lose the tense and aspect markers in English: when things are compared, one speaks of *comparison* whatever the time—present, past, or future. Similarly, in Russian, to express the notion "to compare", we find the same contrast as in practically all Russian verbs, namely the contrast between perfective *sravnit'* and imperfective *sravnivat'*; but this language has only one corresponding noun: perfective-derived *sravnenie*. As opposed to that, Aymara (Gutierrez 1981: 115) and Comox (Hagège 1981: 142) keep the tense and aspect morphemes of verbs in derived nominals. What becomes, then, of subject and object noun-phrases in a predicative structure with a transitive verb as the head, when they are converted into elements depending on noun-phrases? Consider (109):

(109)   ENGLISH
    a. *the hunter shot the deer*
    b. *the hunter's shooting of the deer.*

We see that English uses here its two nominal dependency marking devices: in English, when a transitive verb is nominalized into a gerund of action by conversion, the object-patient is converted into an *of*-governed qualifier and the subject-agent into an *'s*-governed qualifier. *'s*, the other English connective Adp, is not recognized as such by some linguists, including Mel'čuk, who denies this status to the "Saxon genitive", while he credits the modern Irish genitive with it (2006: 120–6). In many languages the agent can also be converted into an adnominal Adp-phrase by the use of an instrumental Adp. Thus, in German, we have, with the nominal conversion of an agent and a goal, structures such as:

(110)   GERMAN (Feuillet 1991: 201–5)
    die   *Verlegung der*   *Kompanie nach*
    ART.F.SG.NOM transfer   of.ART.F.SG.GEN company towards
    A-Dorf ***durch*** *den*   *Kommandeur*
    A-village by   ART.M.SG.ACC major
    'the transfer of the company towards village A by the major'.

It is interesting to note here that the nominal conversion of the *von*-marked agent of German does not keep *von* and replaces it with *durch*, as shown again by the non-correspondence between (111a) and (111b) in terms of agent-marking Prs; the same applies to the object of an affect verb, as shown by (111a′) and (111b′), where we see that this object, directly following the verb, is, on the other side, marked with *zu* when the head is a noun. The opposite case

is exemplified by adjects (cf. 4.1.2.4), for which the same Pr is kept, as shown by (111a″) and (111b″):

(111)   GERMAN (Feuillet 1991: 203)

   a. *Amerika   wurde   von   Christoph   Kolumbus   entdeckt*
      America   was   by   Christopher Columbus   discovered
      'America was discovered by Christopher Columbus'

   b. *die   Entdeckung Amerikas   durch Christoph*
      ART.F.SG.NOM discovery   America.GEN   by   Christopher
      Kolumbus
      Columbus
      'America's discovery by Christopher Columbus'

   a′. *das   Kind   liebt   seine   Eltern*
      ART.Nt.SG.NOM child love.3SG.PRS   POSS.M.PL.ACC parents
      'the child loves his parents'

   b′. *die   Liebe des   Kindes   zu*
      ART.F.SG.NOM love   ART.Nt.SG.GEN   child.GEN to
      seinen   Eltern
      POSS.M.PL.DAT parents
      'the child's love for his parents'

   a″. *wir hoffen   auf baldiges   Wiedersehen*
      1PL hope.1PL.PRS   on   forthcoming seeing.again
      'we hope to meet again soon'

   b″. *unsere   Hoffnung auf baldiges   Wiedersehen*
      POSS.F.SG.NOM hope   on   forthcoming seeing.again
      'our hope of meeting again soon'.

Other languages distinguish the nominal conversion of the agent of affective verbs from that of patients by a change in Adps, as opposed to languages using one and the same noun-phrase with a connective Adp, entailing, as a consequence, a risk of ambiguity. Thus, while in French *la crainte de l'ennemi* is ambiguous between two meanings: "the fear of enemies" or "the fear felt by enemies", Spanish has *temor a los enemigos* in one case and *temor de los enemigos* in the other.

4.3 Adp-phrases as predicates

In Section 4.1 I have studied the contribution of Adp-phrases to the relationship between verbal predicates and core vs. peripheral complements. In Section 4.2 I have shown that Adp-phrases may also have another, less often

studied, function, namely as adnominal complements. In this section I will focus on the third function Adp-phrases may serve, an interesting and also rarely studied one (except in certain parts of Stassen 1997), namely as predicates. After showing that bare Adps themselves can also function as predicates (4.3.1), I will study predicative Adp-phrases under two headings: those that occur without a copula, fulfilling the predicative function on their own (4.3.2), and those that occur with a copula, in various contexts (4.3.3).

4.3.1 *Adps as predicates*

Consider example (112):

(112)   FRENCH
       *il   est   **pour***
       he   be.3SG   for
       'he sides with (him, her, it, etc.)'.

We could claim that the governed term of the French Pr *pour* is here understood, or provided by the context in which such a sentence would be uttered in natural communication. This sentence, then, would illustrate the phenomenon of ungoverning Adps, studied in Section 2.3.1.2. But another analysis treats this sentence as containing a predicate which coincides with a bare Adp. In fact, these two treatments are not mutually exclusive, since the absence of a governed term, if any, does not prevent *pour* from functioning as a predicate here, and the sentence from being a fully-fledged one. Furthermore, predicative Adps, if uncommon, are not unattested elsewhere. As early as Homeric Greek, and later in Classical Greek, we find such examples as:

(113)   HOMERIC GREEK (II., 14, 216)
       éni mèn   filótēs, én d'   *hímeros*
       in   firstly love   in secondly desire
       'in (there) is love, in (there) is desire'.

A number of other Classical Greek Prs are found in the same predicative use, in two variants which are distinguished by the position of stress, that is *én/ení* "in", *ámfi/amfí* "around", *ápo/apó* "from", *épi/epí* "on", *húper/hupér* "above", *húpo/hupó* "beneath", *pára/pará* "close to", *méta/metá* "after".

4.3.2 *Copulaless predicative Adp-phrases*

Adp-phrases functioning as a predicate without a copula occur in a number of languages. In almost all cases the meaning is spatial or temporal. These

Adp-phrases either refer to motionless locations, or to various kinds of moves. Here are some examples:

(114)   a.   RUSSIAN (Mazon 1963: 295)

  i.   *on   v   komnate*
       3SG.NOM   in   room
       'he is in the room'

  ii.   *ja   k   vam*
        1SG.NOM   towards   2PL.DAT
        'I will come to your place'

  b.   SPOKEN INDONESIAN (Septiani Wulandari p.c.)

  i.   *keluarga   di rumah*
       family   in house
       'the family is at home'

  ii.   *məreka   kə   bioskop*
        3PL   towards   movies
        'they are going to the movies'

  c.   BUGIS (Sulawesi, Western Malayo-Polynesian, Austronesian, Indonesia) (Sirk 1979: 138)

  ri-barúga-i   padaworoané-ku
  in-guest.house-3SG father-POSS.1SG
  'my father is in the guest-house'

  d.   SWAHILI (Racine-Issa 1998: 13)

  i.   *u   na   nafasi?*
       you   with   space
       'do you have (enough) room?'

  ii.   *u   na   bahati*
        you   with   luck
        'you are lucky'

  e.   SHONA (Bantoid, Benue-Congo, Niger-Congo, Zimbabwe) (Welmers 1973: 325)

  ndì   né   mùsóró
  1SG   with   headache
  'I have a headache'

  f.   i.   TUNISIAN ARABIC (Semitic, Tunisia)

  ʿand-u   beyt   kbi:r
  APUD-3SG.M   house   big
  'he has a big house'

    ii. RUSSIAN

       u-njejo   *interesnaja*   *kniga*
       APUD-3SG.F interesting.F   book
       'she has an interesting book'

    iii. KOLYMA YUKAGHIR (Maslova 2003: 447)

       tude-ge   *tī*   *šoromo-pul-n'e-l'el*
       3SG-LOC here person-PL-PRPR-INFR.3SG
       'he had relatives here'.

Examples (114a.i), in Russian, and (114b.i), in Indonesian, contain predicative Adp-phrases referring to motionless locations, while (114a.ii) and (114b.ii) both refer to moves from one point to another, all these examples containing Prs which mean, respectively, "in" and "towards".

In (114c) we observe an interesting fact: Bugis is one among the few languages in which Adp-phrases, by a logical consequence of their predicative aptitude, can receive person-marking, as if they were verbs! In "metalinguistic" English, granting there exists a verb "to in.guest.house", (114c) would mean "my father in.guest.houses". Examples (114d) and (114e) illustrate another interesting fact: Sawhili and Shona, a well- represented type among African languages, do not have a verb strictly meaning "to have"; so they express "X has Y" as "X (is) with Y": in these examples, the meanings "do you have room?", "you have luck", and "I have a headache" are expressed, respectively, by "(are) you with room?", "you (are) with luck", and "I (am) with headache". It is interesting to stress that expressions having a form which literally means "(to be) with" but are equivalent to a verb "to have" are commonly used, in such languages, to express affects, as seen in (114e) and explained in detail in Hagège (2006*a*).

Examples (114f.i–ii) illustrate another interesting typological phenomenon (cf. Hagège 1982: 48–50 for details): in Russian as well as in most Arabian dialects, and also in languages without a verb "to have" (and a verb "to be" only in the past and future), "X has Y" is expressed by "Y (is) at X's", just as in many other languages such as Hebrew, Aymara, etc. Both (Classical and dialectal) Arabic *ʿand* and Russian *u* are marks of the apudessive meaning (cf. Section 5.3.3.2.b). These languages treat the possessor like a place. I suggest that the label *lococentric*, which I introduced in Section 2.4.2.4.b to characterize languages having chorophorics, should also be applied to languages in which the possessor is treated like a place, as illustrated by examples (114f.i–ii).

Finally, (114f.iii) shows a hybrid structure, typical of Yukaghir: in this sentence, the postpositional phrase *tude-ge* may be replaced by a nominative noun-phrase representing the subject, hence the proprietive suffix with

the noun *šoromo*, the meaning of the sentence then being, "he is persons-possessing", a structure attested in other languages, such as Quechua and many Australian languages: Alawa, Biri, Gumbayngir, Ritharngu, Wunambal, etc. (Dixon 1976). Unlike the possessive Adp-phrases in examples (116 h–j) with a copula, (114 f.iii) is a mixed structure, in which a proprietive Adp-phrase is the predicate, and a locative one is the subject.

4.3.3 *Predicative Adp-phrases with a copula*

When Adp-phrases occur with a copula, it may be the same as in nominal predication, as shown by the examples in (115). In English the copula used in equative sentences or in attributive ones like (115a.i) does not distinguish itself from the one used in locative sentences like (115a.ii). Similarly, Nanafwe Baule has the same copula *tì* in (115b.i), which is an equative sentence, as in (115b.ii), in which the predicative Adp-phrase has a comparative meaning, using the comparative circumposition *ké . . . sâ*:

(115)   a.   ENGLISH
        i. *he is a teacher*
       ii. *he is **in London***

    b.   BAULE, Nanafwe dialect (Kwa, Niger-Kongo, Côte d'Ivoire) (Bohoussou et Skopeteas 2005: 156, 165)
        i. *kòfi tì jàswá*
           Kofi be boy
           'Kofi is a boy'
       ii. *kòfi tì ké méntrê sâ*
           Kofi be like master
           'Kofi seems to be a master'.

As opposed to the situation represented by examples (115a–b), the copula may have a special form, stative locative in most uses, although some languages also use a copula with Adp-phrases having other meanings. Consider (116):

(116)   a.   SPANISH
        i. *Madrid es la capital de España*
           'Madrid is the capital of Spain'
       ii. *Madrid **está en el centro** de España*
           'Madrid is (located) in the centre of Spain'

    b.   IRISH (Dillon and Ó Cróinín 1961: 40)
        i. a'. *táim*   *go maith*
              be.located.1SG.PRS to well
              'I am well'

b′. *táimíd*   *tuirseach*
be.located.1PL.PRS tired
'we are tired'

ii. *táid*   *amuigh* **sa**   **ghairdín**
be.located.3PL.PRS outside in.the garden
'they are out in the garden'

c. SWAHILI (Welmers 1973: 327)

  i. *wa-li-kuwa*   *na*   *njaa*
  CL2(=3PL)-PST-be with hunger
  'they were hungry'

  ii. *kitabu* **ki-po**   *meza-ni*
  book   CL-be.on table-SURESS
  'the book is on the table'

  iii. *kitabu* **ki-ko**   *shule-ni*
  book   CL-be.at school-INESS
  'the book is at school'

d. PURÉPECHA (Tarascan, Mexico) (Chamoreau 2005: 191)
Pétu **Maria-o**   *xaɽa-s-ti*
Peter Maria-APUDESS be.in-AOR-ASS.3
'Peter is at Mary's place'

e. KAPAMPANGAN (Northern Philippines, Western Malayo-Polynesian,
Austronesian, Philippines) (Mirikitani 1972: 72)

ati *ya* *ing* *lalaki* **king** *eskwela*
be.in 3SG TMK boy   at   school
'the boy is at school'

f. DAMANA (Aruak, Chibchan, Colombia) (Trillos Amaya 1994: 419–21)

  i. *cimonkero* *uraga-mba*   *nuk-ka*
  Cimonkero house-INESS be.located-3SG.PRS.FACT
  'Cimonkero is in the house'

  ii. *jiwa-ka té*   *makum-a*
  rain-at   stopping remain-3SG.PST
  'he remained standing in the rain'

g. BRETON (Celtic, Indo-European, France) (Avezard-Roger et
Costaouec 2005: 96)

  i. *e* **Sant-Nigoudem** *ema-omp*   *peogwir* **ema-ñ**
  at Saint-Nicodem be.located-1PL because be.located-3SG

war   an   uhel
SURESS ART height
'we are at Saint-Nicodem because it is on a high place'

ii. *o   levr kozh zo   gan-in*
INDEF book old   be.3SG with-1SG
'I have an old book'

h. HINDI (McGregor 1972: 9)
yah   makān us   strī
PROX.DEM.NOM.M house   DIST.DEM.OBL woman
kā   hε
CONN.ADP.M.SG be.3SG
'this house belongs to that woman'

i. JAPANESE
kimi   no   desu   ka
2SG.POL CONN.Po be.PRS PQ
'is (it) yours?'

j. AYMARA (Aymaran, Bolivia, Peru, Chile) (Porterie-Gutierrez 1980: 90)
uta   χa   pedro-na-ka-i   wa
house TOP Peter-POSS.GEN-PRED-3SG FOC
'the house is Peter's'

k. MALTESE (Semitic, Afro-Asiatic, Malta) (Hagège 1993:66)
pawlu sa-i-kol-l-u   χobža
Paul   FUT-3SG.M.NOM-be-to-3SG.M.OBL bread(F)
'Paul will have a loaf'

l. KOREAN (Koh 2005: 113)
pier ga   əysa   ga   an   i-da
Pierre SMK doctor SMK NEG be-ASS
'Pierre is not a doctor'.

The examples in (116) illustrate the predicative uses of Adp-phrases in association with various kinds of locative and non-locative copulas:

- Spanish has a special stative locative copula, distinct from the non-locative copula, as seen in (116a.i–ii).
- In Irish the stative locative copula *ta* used to refer to physical or mental states as seen in (116b.i) is also used with predicative Adp-phrases, as shown by (116.b.ii).

- Swahili, as seen in (116c.i), also has a physical and mental use of its corresponding copula, with the same concrete or abstract possessive meaning, including possession proper and affects, as in copulaless sentences illustrated above in Swahili and Shona by examples (114d–e); in addition, Swahili, as seen in (116c.ii–iii), uses the locative verbs *po* (specific place) and *ko* (non-specific place), which agree in class with the subject.
- There are locative copulas in Purépecha, Kapampangan, and Breton, as illustrated by (116d), (116e) and (116g.i) respectively. Breton also has, besides its stative locative verb *ema*, a possessive use of its copula *zo* with a comitative Adp-phrase in which the governed term refers to the possessor, as in (116g.ii), to express possession, according to the formula "Y(possessed) (is) with X(possessor)", comparable to the formula "at X's (possessor) (is) Y(possessed)", illustrated for copulaless Adp-phrases by Tunisian and Russian in examples (114f.i–ii).
- Damana has a wide variety of locative verbs, two of which are illustrated in (116f): the one in (116f.i) is a general locative, while the one in (116f.ii) is a specific locative (Damana also has a even wider variety of existential verbs, depending on the various types of existence and places).

The last five elements of example (116) show more particular uses of predicative Adp-phrases:

- Examples (116h–j) illustrate predicative Adp-phrases in which the Adp is a connective marker. English *'s* yields a comparable structure, for example in *this house is John's*, and Hindi *kā*, Japanese *no* and Aymara *na* function in the same way.
- In Maltese, as seen in (116k), an interesting phenomenon has taken place: the birth of a verb "have" in a language which only had a verb "be" before. Maltese has gone one step farther, in this respect, than Russian and other Arabic dialects: in the construction "Y is (= "belongs") to X", "is to" has become a genuine verb "be", as shown by the person agreement between Pawlu, masculine and the verb-phrase, which begins with the masculine third person marker *i-*, even though the real subject in the original structure is *χobža*, a feminine noun, which should consequently trigger feminine agreement. We have here a striking example of **reanalysis**.
- In Korean, as seen in (116l), when an equative sentence "X is Y" (in which the copula has no other meaning than that of a link between the two noun-phrases) is negative, the attribute Y is, optionally, marked by *ga*, the same Po as the one marking the subject.

Finally, two further types deserve to be mentioned: first, mental state Adps, which will be studied in Section 5.3.3.4.f; second, predicative Adp-phrases with an idiomatic meaning, used to express certain grammatical relationships. Welsh, for example, uses a prepositional phrase with the Pr *yn* "in", to mark predicative nouns and adjectives. A mark of the specific character of this structure is the fact that *yn*, while it requires nasal mutation, often with regressive assimilation, when used non-idiomatically before a nominal governed term, as in (117a), requires soft mutation before nouns and adjectives used as predicates, as shown by (117b) and (117c) respectively, in which some authors (e.g. Bowen and Rhys Jones 1960: 57) do not treat it as an Adp:

(117)   WELSH (Bowen and Rhys Jones 1960: 57–8, 67)

    a. *yng Nghymru*
       in   Wales
       'in Wales'

    b. *ymae   hon yn fardd mawr*
       be.3SG 3SG in   poet   great
       'he is a great poet'

    c. *ymae   'r   bachgen yn dal*
       be.3SG ART boy   in   tall
       'the boy is tall'.

Example (117a) shows that the association *yn* + *Cymru* yields *yng Nghymru* by nasal mutation. Examples (117b) and (117c) show that in idiomatic predicative function after the Pr *yn*, the noun *bardd* "poet" and the adjective *tal* "tall" become *fardd* and *dal* respectively by soft mutation.

4.4 Adp-phrases as head and focus

Sections 4.1–4.3 have presented the main three functions served by Adp-phrases in sentences: adverbial complements of a verbal head, adnominal complements of a nominal head, and predicates by themselves, with or without a copula. Now, the study of language data as constituting the material on which functionalist linguists work does not rule out an interest in certain processes from which these data result: in the functions studied above, Adp-phrases can also behave as the scopes of certain operations, which produce them. In this section I will study the two operations I have been able to observe as being the main ones in this respect: Adp-phrases can function as heads with respect to various types of adjuncts (4.4.1), and they can be focalized (4.4.2).

4.4.1 *Adp-phrases as heads with respect to certain dependent elements*

In their functions as core or peripheral complements of verbal predicates (Section 4.1), and to some extent also in their other two functions (Sections 4.2 and Adp-phrases can receive various adjuncts and qualifiers. In Sections 2.2.1.1 and 3.2.1.1 I recalled, based on examples (3e) in Chapter 2 (cf. also (59–61′) in the current chapter), that, according to some authors, the English adverbial adjunct *right* may be used to bring to light some features of the Adp-phrases it qualifies. In Section 4.2.1.1, example (83) shows an adnominal Adp-phrase qualified by the adverb *very.* Here are further examples of Adp-phrases as heads of dependent elements: in (118) the adverbs *guāng* and *bùdān* determine the Adp-phrases *cóng xiāojí fāngmiàn* (a) and *wèile bīnggi* (b), and in (119) the emphasizing adverb *raki* determines the case-marked complement *kawki-ru.*

(118)   MANDARIN CHINESE (Hagège 1975: 275)

  a. *nǐ   zěnme **guāng** cóng xiāojí   fāngmiàn kàn   wèntí*
   2SG how   only   from negative side   look question
   'how can you view the problem from the negative point of view only?'

  b. *tā   **bùdān**   wèile bīngqì   gōngzuò*
   3SG not.only for   war.material talk
   'he does not work only for the war material'

(119)   AYMARA (Porterie-Gutierrez 1980:168)
   kawki-ru-raki   sara-pxā-ta
   where-ALL-EMPH   go-PL-2SG.FUT
   'where ever will you go?'.

Certain elements of Compound Adps can also be determined by other elements, as in French *à l'étonnante exception de,* in which, if we consider the whole expression as a Complex Adp rather than the association of the Pr *à* and a governed term *l'exception de,* the member *exception* receives an adjective *étonnante* as a qualifying element; the same is true of the likely English equivalent of this expression, namely *with the surprising exception of.* Such formations might cast some doubt on the validity of a statement according to which "[a] characteristic of Adps is that no attribute may be attached to them" (Grünthal 2003: 47). This statement, albeit true of many types of Adps, does not apply to all. In certain Complex Adps, the qualifying element is in fact a constitutive part of the Complex Adp itself.

4.4.2 *Focalization of Adp-phrases*

Whatever the focalization tool, most languages can focalize Adp-phrases. A universal strategy to that effect is intonation. Consider (120):

(120)   *they are not **for** you but **against** you.*

In such contexts as (120), *for* and *against* bear constrastive stress, whose intonational expression is a move of the vocal chords, on *for* and *against*, beyond 200 Hz, with a duration longer than 2 deciseconds, while both occurrences of *you* are at no more than 110 Hz and last barely longer than 1 decisecond. These distinct intonational events point to a clear difference between focalized (*for* and *against*) and non-focalized (or given) parts of the utterance (cf. Hagège 2004*b*: 270–3).

Another widespread focalization strategy resorted to in order to focalize Adp-phrases is the use of special focalizers, like English *it is X that...* or its French equivalent *c'est X qui* or *que...* Examples are (121a) and (121b), which have the same meaning:

(121)   a. *it is with him **that** she wants to work*

        b. *c'est avec lui **qu'**elle veut travailler.*

Other languages use less common means. Thus, in Zaise, the case-marked complement may be focalized by receiving a suffixed copula, followed by a person marker, probably because these morphemes are enclitic and need a first stressed word in the sentence:

(122)   ZAYSE (Omotic, Afro-Asiatic, Ethiopia) (Hayward 1990: 351)
        keesu-ga-tt-et   *gel-in*
        house-ILL-COP-1sG   enter-PST
        'it was into the house that I entered'.

Wackernagel's (1892) host is here a case-marked complement, unlike in Chapter 3: (21)–(22). Focalizing clitics meaning "only" (e.g. Korean-*man*) are sometimes treated as Adps (cf. Guillaume 2008: 546–7 on Cavineña (Tacanan, Bolivia) -*kama*).

4.5 Recalling the syntactic diversity of Adp-phrases: some illustrations

As a conclusion to the present chapter on the syntactic characteristics of Adps and Adp-phrases, I will recall, with relatively simple English examples using the Pr *on*, their diversity in terms of syntactic behaviour. Consider (123):

(123)   ENGLISH (Rauh 1991b: 169–71)

    a.   *the book is **on the table***

    a′.   *Mary **on drugs** is terrible news*

    b.   ***on second thoughts,** he was unsuccessful*

    b′.   ***on the other hand,** he likes music*

    c.   *he read the book **on the boat***

    c′.   *he wanted **the book on the table***

    c″.   *scientific instruments are now available **on a large scale***

    c‴. *he waited outside **on the pavement***

    d.   i. *he stayed **on the hill for an hour***

    d.   ii. *he jumped **on the table***

    d′.   i. *his stay **on the hill** lasted an hour*

    d′.   ii. *his jumping **on the table** caused problems*

    e.   *he insisted **on his reward***

    e′.   *they made a special broadcast **on the subject***

    e″.   *he is dependent **on his salary***

    f.   *he **put on** his hat*

    f′.   *he **switched on** the light.*

Example (123), in which I do not take into account the uses of *on* as a constituent part of derived or compound words like *onlooker* or *hangeron*, illustrates some syntactic uses of Adp-phrases with a particular English Pr: *on* functions as a predicate at the sentence level in (123a) and at the noun-phrase level in (123a′); as a disjunct in (123b) and a conjunct in (123b′) in the sense of Greenbaum (1969); as an adjunct in the contexts of a verb in (123c), of a noun in (123c′), of an adjective in (123c″), and of an adverb in (123c‴); as governing a spatial complement, static or non-static, of a verb and its nominal conversion in (123d.i), (123d.ii), (123d′.i), and (123d′.ii); as the pertentive marker (cf. Section 5.3.1) of a noun(-phrase) whose head is a verb, then a noun, then an adjective in (123e), (123e′), and (123e″); as a marker of a complement belonging to the valency of the verbal predicate in (123f) (non-idiomatic) and (123f′) (more idiomatic).

These examples are only brief and partial illustrations of a syntactic diversity whose semantic counterpart will now be studied in Chapter 5.

5

Adpositions from the semantic point of view

It is one of the main characteristics of human languages to present the observer a complex set of raw facts which do not contain such things as phonology, morphology, or any of the components that are distinguished by professional linguists as objects of a scientific study. Meaning, in particular, is everywhere. As a consequence, the preceding chapters of the present book have already mentioned, by necessity, many semantic phenomena, even though none of these chapters had a specifically semantic purpose.

I will here recall some of these phenomena only:

- Section 2.2.2.4.e presented the semantic and pragmatic criteria distinguishing Adps from case affixes;
- Section 2.2.3.4.b commented on many Complex Adps whose meaning changes, particularly for those which are spatial (e.g. in Icelandic, Russian, Latvian), depending on the declension case required by their adpositional component;
- Section 2.4.1.3.c stressed the semantic variations induced in Adp-phrases by the presence vs. absence of an applicative morpheme;
- Section 2.4.2.4, where I introduced the notion of *chorophorics*, called attention to a hitherto unheeded, but important, semantic and pragmatic difference between two conceptions of objects as located in space, and showed that *place as an entity* should be distinguished from *place as an inherent spatial relation*;
- Sections 3.4.4–3.4.5 showed that a semantic bleaching process underlies the grammaticalization of verbs and nouns becoming Adps in many languages;
- Section 4.1.2.5.a examined the semantic parameters triggering the choice of an Adp as a "direct object marker" in a number of languages, especially Romance;

- Section 4.1.2.5.b offered various theoretical arguments and various practical examples suggesting that it is useful to distinguish strong and weak transitivity;
- Section 4.1.4 illustrated the semantic difference between marked and unmarked adverbial complements.

What the present chapter will essentially try to do, despite the artificial nature of a method which amounts to isolating semantic facts as self-sufficient entities, will be to present the main meanings which are marked, crosslinguistically, by Adps, distributing them in various domains, according to what we observe in languages. But before doing so, it is in order to show—since syntactic facts, studied in Chapter 4, and semantic facts, studied here, are closely related—what this relationship consists of as far as Adps are concerned.

Therefore, I will begin with a study of the relationship between syntactic and semantic facts (5.1). I will then study some aspects of the contribution of Adp-phrases to meaning, based on the semantic behaviour of Adps and their organization into a system of relationships between semantic functions (5.2). Finally, I will present the semantic domains—groups of semantic functions— that can be distinguished as those between which Adps are distributed crosslinguistically (5.3).

5.1 On the relationship between the syntactic function of Adps and their semantic content

In this section, I will study Adps as a possible type of mapping of semantic classes (5.1.1), and the role of Adps in the distribution of tasks between various means of expression (5.1.2).

5.1.1 *Adps as a possible type of mapping of semantic classes*

5.1.1.1 *The morphological and syntactic mapping of meaning*   Human languages may be considered as methods by which concepts, organized in semantic classes, are converted into grammatical categories and syntactic functions, expressed themselves, except in sign-languages, by phonic means. In order to see how concepts are mapped onto language categories, it is useful to start from Aristotle's classes (cf., e.g., Ackrill 1963: 5) and to subdivide them, as is proposed in Award (2001), into subclasses, of a kind akin to Goddard and Wierzbicka's (2002) semantic primitives, which these authors consider as being also lexical universals of their Natural Semantic Metalanguage. These classes and subclasses appear in (1):

(1) MAIN SEMANTIC CLASSES AND SUBCLASSES, WITH (ONLY) SOME EXAMPLES

person:	I, you, someone, people
thing:	something
place:	here, there, above/under
time:	when, after/before
relation:	can/may
	the same, other
	because, if
	kind of, have parts
event (subsuming action and process, both mental and physical):	
	become, cough, happen, know, love, make, run
property:	good, bad, big, small
quantity:	no
	one, two, many/much
	all
possession:	my, your, his

It appears, by examining (1), that the mapping of semantic classes onto syntactic functions and grammatical categories goes, crosslinguistically, the following way: events will generally be represented by predicates (cf. Vendler 1967), verbal in most languages, verbal and nominal in languages with nominal predicates; persons/things will be mapped onto arguments, generally nouns and pronouns; quantity onto quantifiers and numerals; property onto predicate or argument modifiers (adverbs and adjectives respectively); and possession on possessive pronouns and/or adjectives.

5.1.1.2 *Adps and semantic classes* As a consequence of the above, the interesting problem in the perspective of this book is to know what will become of the remaining semantic classes in (1): place, time, and relation, when they are mapped onto language categories. The answer is not hard to find: Adps (and case-affixes where they exist) will play a central role here, along with the other two word-types, whose kinship with Adps has been shown in Sections 2.3.1 and 2.3.2, namely adverbs and conjunctions.

This being said, not all semantic classes and sub-classes in (1) will be lexicalized in all languages. The correlations proposed by certain authors are not always borne out. For instance, even if Hengeveld's (1992) suggestion that languages with adverbs also have adjectives is rephrased as a general statement according to which languages with Adps tend also to have adjectives, one comes across many counterexamples, where what is translated by English adjectives are in fact static verbs: Chinese, Japanese, many Oceanic languages, Tibeto-Burman languages like Garo and Deuri (cf. Jacquesson 2005: 108, 111–13)

(both Baric, India), Lahu (Lolo-Burmese, Myanmar, China, Thailand), Hayu (Bodic), and Manipuri (Kuki-Chin-Naga, India), as well as Ainu (Japan) and Chemehuevi (Uto-Aztecan, United States) (cf. Bhat 1994: 189–92).

Furthermore, a part-of-speech system is more than a mere lexicalization of a subset of the semantic classes mentioned in (1). The process by which semantic classes are mapped onto formally demarcated morphosyntactic categories is a complex one. Rather than clear-cut parts of speech, what we find are typical spreads of lexical items and grammatical means over the semantic subclasses in (1). As a consequence, Adps are only one of the possible products of the lexicalization of agency, as well as place, time, and relation, into adverbial function. I will mention here some illustrations of this important morpho-semantic and typological characteristic of languages, in each of the three semantic domains distinguished in Section 5.3.1. and Table 5.1—namely core partici-pants (5.1.1.2.a), spatio-temporal meanings (5.1.1.2.b), and relation (5.1.1.2.c).

5.1.1.2.a Adps and semantic classes in the field of core participants   We know (cf. Section 4.1.2.2) that in this semantic field Adps are only rarely used as markers; it turns out that one of the few languages that use an Adp in this way, namely Sinhala, uses it in a specific meaning, while case suffixes are used for other meanings, as shown by examples (2a–d):

(2)   SINHALA (Indic, Indo-European, Sri Lanka) (Gair 1990: 17–22)

    a. *mamə   ee   wacəne kiwwa*
       1SG.NOM DEM word   say-PST
       'I said that word'

    b. *matə   ee   wacəne kiyəwuna*
       1SG.DAT DEM word   say.INV.PST
       'I blurted that word out'

    c. *mageng   ewwage   wacəne kiyəwenne   næ:*
       1SG.INSTR DEM."kind.of" word   say.INV.PRS NEG
       'I never say that kind of word'

    d. *mang   **ating** ee   wacəne kiyəwuna*
       1SG.OBL *ating* DEM word   say.INV.PST
       'I accidentally said that word (unthinkingly)'

In (2) we see that there are four different structures in Sinhala to express the participant of a verb of saying: the Complex Adp "OBL + Po *ating*" is used when the speaker says something accidentally and unthinkingly, whereas the nom-inative, the dative, or the instrumental are used, respectively, when the speaker has control, no control, or a varying degree of control, over the act of saying.

TABLE 5.1. The semantic system of Adps

Semantic domains	Names of semantic functions	English Adps as examples
I CORE MEANINGS	1. agentive	no Adp in English
	2. patientive	no Adp in English
	3. attributive	*to*
	4. possessive	*'s, of*
II NON-CORE MEANINGS		
A *SPATIO-TEMPORAL*		
(a) Static	5. inessive: –spatial	*in, within*
	–temporal	*in, on, at, as of*
	6. apudessive	*at (X)'s*
	7. adessive	*at, by, beside, near*
	8. abessive: –spatial	*out of, from; beside*
	–temporal	*since, as early as*
	9. obessive	*in front of, opposite*
	10. suressive	*on*
	11. superessive	*above, over*
	12. subessive	*under, below, down*
	13. preessive: –spatial	*before*
	–temporal	*before; ago; pending*
	14. postessive: –spatial	*behind, after, beyond*
	–temporal	*after, in; within*
	15. circumessive	*around*
	16. medioessive	*among*
	17. interessive	*between*
(b) Non-static	18. illative	*to, into*
	19. allative	*towards*
	20. terminative: –spatial	*down to, as far as*
	–temporal	*till*
	21. ablative	*from*
	22. obversive	*in front of*
	23. surlative	*onto, above, over*
	24. superversive	*above, over*
	25. sublative	*under, below, down*
	26. prelative	*before*
	27. postlative	*behind, after, beyond*
	28. circumlative	*around*
	29. mediolative	*among*
	30. interlative	*between*
	31. perlative: –spatial	*across, through, via*
	–temporal	*for, during, in*
	32. prolative	*past*
	33. secutive	*with, along, following*

(cont.)

TABLE 5.1. (*Continued*) The semantic system of Adps

Semantic domains	Names of semantic functions	English Adps as examples
B *NON-SPATIO-TEMPORAL*	34. proprietive	*having*
	35. exclusive	*without*
	36. exceptive	*except, save, bar(ring)*
	37. comitative	*with, along with*
	38. instrumentive	*with; by, through*
	39. mediative	*in the manner of, à la*
	40. motivative	*because of; for; thanks to*
	41. concessive	*despite*
	42. comparative	
	– of equality	
	– equative	*as*
	– assimilative	*like*
	– of inequality	*than*
	43. essive, translative,	
	mutative	*qua, as,*
		off, out, to
	44. purposive	*for*
	45. adversative	*against*
	46. pertentive	*about, with respect to*
	47. roborative	*according to; depending on, following*
	48. adnumerative	*in proportion to*
	49. additive	*in addition to, besides*
	50. substitutive	*instead of*
	51. hypothetical	*in case of*

5.1.1.2.b Adps and the semantic field of spatio-temporal relations   The expression of temporal circumstances is not the exclusive domain of adverbial Adp-phrases. It can, especially for past time distance, be expressed by subordinate structures such as relative clauses, for instance in Indonesian or in Hausa, as is shown by examples (3) and (4) respectively:

(3)   INDONESIAN (Septiani Wulandari p.c.)
    *tiga bulan **yang lalu**, dia datang*
    three month REL elapse 3SG come
    'three months ago, he came'

(4)   HAUSA (West Chadic, Chadic, Afro-Asiatic) (Hill 1978: 530)
    *ɗaa-naa yaa daawo cikin awàa biyun **dà sukà wucè***
    son-1SG.POSS 3SG.PST return in hour two SUB 3PL.REL pass
    'my son returned two hours ago'.

Examples (3) and (4) illustrate the use of a subordinate structure, here a relative clause "(in) + time unit + which passed" as the only way to express past time distance (English *ago*).

In the semantic field of spatial relations, the job done by Adps can be done by other means. An interesting situation, in this respect, is that of languages possessing, like those of the Bantu stock, the special locative markers that I have called *chorophorics* (cf. Section 2.4.2.4). In these languages it is possible to express fairly precise locational relations. Furthermore, they illustrate the essential cognitive distinction that must be made between two conceptions of things in the world, depending on whether things are taken in themselves or as occupying a certain place in space. However, possessing, as they do, a specific morphology for the expression of things as spatial entities makes no provision for the expression of motion.

Languages possessing chorophorics or other types of spatial markers may have to resort to other means to express motion. Recalling that motion can be studied as the action of a figure, or object moving with respect to another object (the ground) by following a path in a certain manner (cf. Talmy 1985: 60–1), we observe that certain languages have no path-denoting Adps. These languages use another strategy, which consists of incorporating paths into verbs, hence, for instance, in Zulu, *ngena* "go into", *phuma* "go away from", *dlula* "pass by", etc. The only nominal complements accepted by path-incorporating verbs in Zulu are nouns with a special suffixed locative marker (cf. p.89 fn. 4), that is only nouns denoting places, to the exclusion of bare nouns denoting pure things: for example *ngena endlini* "go into the house", *phuma eyuniversithi* "leave the university", *dlula ekhaya* "pass by home". However, path-incorporating verbs are non-specific with respect to manner-of-motion and cause-of-motion. Conversely, verbs which specify manner-of-motion, like *hamba* "walk", *gijima* "run", *bhukuda* "swim", *ndiza* "fly", *gxuma* "jump" do not incorporate a path-function. Thus, in order to say "running to a place", "swimming past a place", "flying from a place", etc., Zulu resorts to verb-chaining, for example "run" + "go" + noun with a locative suffix, or to an applicative verbal extension, also with a locative marker suffixed to the place noun. In such a strategy, there is no use of Adps and the problem of expressing motion is resolved by mapping meaning onto structures other than Adp-phrases.

There are other ways to express spatial relations. But they are uncommon, and it remains true that this expression is the preferred domain of Adps. This is recalled by one author in the very passage where he presents one of these rare non-adpositional means as distinct from the structure western scholars are accustomed to. According to this author, DeLancey, in most western languages, which have inspired

our contemporary conception of linguistics, the expression of location and direction is intimately tied to the syntactic category of adpositions. [...] In some languages of North America we find a completely different strategy, in which most of the work of specifying semantic categories of direction and location is accomplished by a set of elements within the verb [...]. Sherzer (1976) [... calls them] "locative-directional markers". In some languages these interact with an adpositional category. [But in others] there is no category of adposition at all. [This is what we find in Klamath, which] is unusual among North American languages in lacking any agreement or indexation in the verb [... but which] marks case on nominal constituents in a nominative pattern. Suffixes mark object [...], genitive, instrumental, partitive and locative cases.   (DeLancey 2003: 89–90)

An illustration of Klamath locative-directional markers was given in Section 2.4.1.3.b.

5.1.1.2.c Adps and the semantic field of relational concepts   The products of lexicalization in the semantic field of relation are, in argument function, nouns and, when existing, adjectives with a relational meaning, as well as, in predicative function, stative verbs (cf. Award 2001: 730–1). But languages can also, for meanings belonging to this semantic field, resort to morphological, rather than syntactic, means. One of them is the use of applicatives (cf. Section 2.4.1.3.c), marking such various semantic functions as inessive, allative, ablative, attributive, instrumentive, and pertentive (cf. Section 5.3.1). Similarly, spatial, comitative, or instrumentive relations can be expressed by incorporated nominals, as in Nahuatl, and manner or comparison by class affixes, like the prefixes of Bantu classes 7 and 8 in Swahili. This is shown in examples (5) and (6) respectively:

(5)   NAHUATL (Launey 1979: 167–8)
    a.   *ni-cuauh-tleco*
        1SG.S-tree-climb
        'I climb up a tree'

    b.   *ō-ni-c-mā-cāuh*   *in no-cax*
        PF-1SG.S-3SG.O-hand-drop ART 1SG.POSS-plate
        'I dropped my plate'

    c.   *ō-tle-huāc*   *in*   *xōchitl*
        PF-fire-get.dry ART flower
        'the fire caused the flower to dry up'

    d.   *ni-cu-icnō-itta*
        1SG.S-3SG.O-poor.man-see
        'I pity him'

    e. *ni-mitz-mā-tēn-nāmiqui*
      1SG.S-2SG.O-hand-lip-meet
      'I kiss your hands'

(6)   Swahili (Racine-Issa 1998: 93)
     *ni-nataka kutizama kanga   **rangi** y-a   **ki-jani***
     1SG-want look.at   loin-cloth colour CL9-CONN.Pr CL7-leaf
     'I want to see the green loincloth'

The incorporated nouns in (5) lose, by the very incorporation process, a part of their material form, particularly the nominal suffix -*tl*. Semantically, they all have an adverbial meaning: *cuauh* in (5a) has a allative meaning; *mā* in (5b) has an ablative meaning: "from the hand"; *tle* in (5c) has a causative meaning: "because of the fire"; *icnō* in (5d) has a comparative-essive meaning: "like a poor man", so that seeing someone as a poor man is here the way to say that one pities him/her; *mā* and *tēn* in (5e) have, respectively, a pertentive and an instrumentive meaning, hence this sentence means literally "I meet you with my lips with respect to your hands". Finally, in (6), "green loincloth" is expressed by a double adnominal structure: the first noun-phrase means "loincloth (with) colour", then the word for "colour" is itself qualified by another noun-phrase linked to it by the CL9 connective Pr *ya*, whose governed term is the noun *jani* "leaf", here associated with the CL7 prefix *ki*. Therefore, the whole expression means, literally, "loincloth colour of like leaf". Thus, comparison is not expressed, here, by an Adp-phrase with a comparative Adp, but by a complex adnominal structure.

    In conclusion, a parallel can be drawn between the syntactic and semantic perspectives: from the morphosyntactic viewpoint, Adps are one of the means of expression of the relationships between complements and syntactic centres, other means being word order, coding in verb morphology, case endings, etc.; in a comparable way, from the semantic viewpoint, Adps are one among other means of mapping content classes onto lexical items.

5.1.2 *The role of Adps in the distribution of tasks between various means of expression*

One may consider that the means of expression that are available in languages to express semantic classes illustrate a kind of distribution of tasks. In the particular case of adpositional vs. other means, one may say that crosslinguistically, certain languages will rather resort to Adp-phrases to express the semantic fields of place, time, and relation, while other languages will resort to other means. Inside one and the same language, certain semantic classes

will be expressed by Adp-phrases, while other means will be used for other semantic classes. Two aspects of this crosslinguistic, as well as language-internal, distribution of tasks can shed light on the semantic behaviour of Adp-phrases: the verbal vs. non-verbal strategy (5.1.2.1) and the difference between verb-framed and satellite-framed languages (5.1.2.2).

5.1.2.1 *Adps and the verbal strategy*   I have proposed (Hagège 1993: 50–7) calling Verbal Strategy the choice, in certain language types, of verb(-phrase)s only, instead of the use, in other language types, of the structure verb + adverbial complement. The verbal strategy can take several forms. I will present here two of the main ones: subordinate structures (5.1.2.1.a) and a succession of verbs (5.1.2.1.b).

5.1.2.1.a **The verbal strategy as an expression of adverbial meanings by subordination of a clause to a main verb**   Consider examples (7a–d):

(7)   PALAUAN (Hagège 1986: 123–4)

    a. *η*   *ulə-bəŋk-ék*   *r a*   *elii*
       3SG.S PST-accompany-POSS.1SG *r* DEPR yesterday
       'he accompanied me yesterday'

    b. *a*   *ηalək a*   *ul-ureór*   *l*   *obəŋk-ém*
       DEPR child DEPR PAST-work CSC.CJ accompany-POSS.2SG
       r a   *elii*
       r DEPR yesterday
       'the child worked with you yesterday'

    c. *η*   *m<il>koð-ír*   *a*   *babi: l*   *ob-á*
       3SG.S VMK<PAST>kill-3SG.O DEPR pig   CSC.CJ bear-3SG.O
       a   *olés*
       DEPR knife
       'he killed a pig with a knife'

    d. *tə*   *rull-í*   *a*   *olbiúηəl l*
       3PL.S make-3SG.O DEPR collar   CSC.CJ
       oláb   *a*   *bu:'*
       bear(form implying a non-human plural O) DEPR betel-nut
       'they made a collar with betel-nuts'

In (7a) *obəŋk* occurs, in the past, as the only predicate and with its full verbal meaning "to accompany". On the other hand, in (7b) (where, being a strange and hybrid unit, it is, as in (7a), followed by a possessive (i.e. nominal) instead of a patient (i.e. verbal) suffix: cf. Hagège 1986: 123), it occurs as a secondary

predicate, inside a subordinate consecutive clause marked by the consecutive conjunction *l*. But the meaning of (7b) is not the one which would result from a literal gloss, that is "the child worked in such a way that he accompanied you yesterday". In fact the verbal structure in (7b) is the Palauan way to express what is expressed in English by the comitative Pr *with*. Similarly, the verbal forms *ob-á* and *oláb*, used, respectively, when the patient of this transitive verb is a third person singular and a third person non-human plural (cf. Hagège 1986: 55) do not have, in (7c) and (7d), the meaning of the verb *lab* from which they are derived, that is "to bear" or "to use", so that these sentences do not mean "he killed a pig in such a way that he bore a knife" nor "they made a collar in such a way that they bore betel-nuts". In fact the subordinate clauses in (7c) and (7d) represent the Palauan way to express what is expressed in English by the instrumental Pr *with*. Thus, adverbial meanings may be expressed, especially in languages poor in Adps, like Palauan, by verbs, whose syntactic primacy (albeit as secondary predicates) is thus in conflict with their lack of semantic primacy (cf. Hagège 1993: 48). But one can also align finite verbs, as will appear now.

5.1.2.1.b The verbal strategy as a succession of clauses with finite verbs   Sentences where adverbial complements are represented by Adp-phrases are in sharp contrast with sentences using the juxtaposed finite verbs method of verbal strategy, as shown by considering (8a–b) on one side, and, on the other side, (9a–b), which are their English equivalents:

(8)   Copala Trique (Mixtecan, Oto-Manguean, Mexico) (Longacre
      1985: 263; numbers = tone levels and glides (1 highest, 5 lowest))
      a. *ga³ta³⁴h juan gu³nḭ³   maria*
         say.PST John hear.PST Mary
      b. *a³ʔma³ ru³wa²h nḭ³ʔi²¹ re⁵*
         angry I   see.I you

(9)   English
      a. *John talked to Mary*
      b. *I am angry at you*

Examples (8a) and (8b) both contain two juxtaposed clauses, recognizable as such by the fact that each of them has its own predicate: a finite verb. Thus, the verbal strategy illustrated by this Trique example produces pluricentric sentences, as opposed to unicentric sentences like those of the English equivalents (9a) and (9b).

Given that the same job is done by the verbal and pluricentric strategy on one side and the unicentric and adpositional strategy on the other, one can hypothesize that they might tend not to co-exist in the same language. Considering, for instance, one language area with a great number of probably related languages, namely Papua-New Guinea, we note that while Hua, Enga, and Kewa use the monocentric strategy, Alamblak, Barai, and Yimas instead resort to verbal series. But "atypical" languages—those using both strategies—also exist, for example Kalam (cf. Pawley 1985: 96–97).

As a partial conclusion to the problem of the role of Adps in the distribution of tasks between various means of expression, it appears that adverbial complements marked by Adp-phrases are not the exclusive solution to the problem of expressing the meaning of a circumstance in which the state of affairs predicated by the verb or other predicate types takes place. Thus, while it is true that Adps are essential function-marking tools in human languages, the semantic content they express can also be expressed by other means, and is not linked to them, and to them only, by some inherent constraint. In addition, even in the many languages which resort to Adp-phrases in these contexts, the distribution of Adp-phrases reflects that a certain semantic content is subject to varations, as will now be recalled in Section 5.1.2.2.

5.1.2.2 *Verb-framed vs. satellite-framed languages*   The difference observed and theorized by Talmy (1985) between verb-framed and satellite-framed languages is by now well known among linguists. I will mention only two typical examples here:

(10)   a. FRENCH
            *il a traversé la rivière **à la nage***

       b. ENGLISH
            *he swam **across the river***

(11)   a. FRENCH
            *vous pouvez aller à la poste **à pied***

       b. ENGLISH
            *you may walk **to the post-office***

In (10a) and (11a) the motion, namely crossing the river and going to the post-office respectively, is expressed by the verbs *traverser* "to cross" and *aller* "to go", while the manner, namely swimming and walking respectively, is expressed by the satellites, which here are the Adp-phrases: *à la nage* and *à pied*. As shown by (10b) and (11b), we note the exact opposite in English.

What this contrast shows is that the lexicalization patterns of motion events do not necessarily go the same way in all languages, and that in particular, such a specific and external event as the manner in which a motion is carried out need not be expressed in all languages by Adp-phrases.

5.2 On some aspects of the contribution of Adps to meaning in synchrony and diachrony

This section will examine Adps as hybrid units (5.2.1), Adps and poetic language (5.2.2), Adps and idiomaticity (5.2.3), and last but not least, it will recall the role of Adps in diachrony as sources of new units (5.2.4).

5.2.1 *Adps as both morphological and lexical units*

Adps are commonly considered, along with other types of function words, such as auxiliaries, and affixal units, such as aspect, tense, or mood markers, as having more general and abstract meanings than so-called content words, traditionally assigned to the lexicon. This does not mean, however, that Adps do not, by some of their semantic features, also belong to the lexicon of languages. One simple piece of evidence is the fact that many mistakes made in a target language by native speakers of another language are Adp mistakes. They can be explained by the failure to grasp the specific semantic content of an Adp in the target language, and thereby to get rid of the pressure of the native language, in which another Adp is used for reasons linked to its content. For example, speakers of French whose knowledge of English, although it is not bad, is not quite sufficient, often say (12a) and (13a) instead of (12b) and (13b) respectively:

(12)   a. *he is attracted by her*
        b. *he is **attracted to** her*

(13)   a. *he called their attention on this fact*
        b. *he **called their attention to** this fact.*

To account for such mistakes, the label I would propose to define Adps with respect to lexical units would be *morpholexical* units. This choice could be further justified by the fact that many expressions built with Adps the meaning of which is understandable by compositionality (therefore not idioms) belong to the lexicon as well as to the grammar. One example would be the English expression *at the beck and call of*, which might be treated as a Compound Adp, although some might prefer to treat it as an Adp-phrase.

5.2.2 *Adps and poetic language*

Contrary to what might be expected if one remains attached to the traditional view of Adps as a purely grammatical phenomenon, Adps play an important and interesting role as stylistic markers. Aristotle noted (*Poetica*, 1458, cited by Brøndal 1950: 97) that certain authors, especially Greek tragedians, were mocked by some of their contemporaries: the poetic style of some of the most famous among these tragedians, for example Sophocles or Euripides, was characterized by certain idiosyncrasies in the use of Prs, especially anastrophe resulting in converting a Pr into a Po as in *dômátôn ápo* "from the houses", or *Achilléôs péri* "around Achilles", and such permutations were sometimes deemed ridiculous. They are also found in Latin authors such as Lucretius or Tacitus, according to Wackernagel, cited by Brøndal (*ibid.*). Danish authors are often said to do what was called "playing with prepositions" by Kierkegaard, who illustrated this play himself with expressions in which one and the same governed term is used with two distinct Adps and two distinct verbs in symmetrical Adp-phrases, for example:

(14)   Danish (Brøndal 1950: 3, citing Kierkegaard 1846: 91)
 om det Sandselige gjelder det, at det
 about ART sensual be.true.PRS DEM SUB DEM

 forringes   i Aarene og aftager med Aarene
 reduce.PRS.PASS in year.ART.PL and decrease.PRS with year.ART.PL
 'it is proper to sensual energy that it loses its importance in years
 and decreases with years'

Similarly, it is a habit of some literary authors to coordinate or juxtapose Adps and Adp-phrases. Some examples are:

(15)   DANISH (Brøndal 1950: 3, citing Høffding 1910: 175)
 *samfundet bestaar **af og i** enkelte individer*
 'society consists of and in specific individuals'

(16)   FRENCH (Brøndal 1950: 3, citing G. Berger 1941: 38)
 elle [la connaissance] est au-delà du bien et du mal,
 *de l'utile et de l'harmonieux, car c'est **en elle**,*
 ***par elle, pour elle** qu'ils se constituent*
 'it ([knowledge] lies beyond good and evil,
 useful and harmonious things, because it is
 in it, by it, for it that they are constituted'

Similar coordinations of Prs, as in *this view is built on, and reinforced by, our experiments* are common in contemporary scientific prose in English, French,

and western languages in general, or other languages inspired by this phrase-ology. Thus we see that these short and polysemous Adps make it possible, by their very semantic versatility, to express fine-grained shades of thought. Certain authors even suggest that the interpretation of religious texts and the solution of doctrinal problems in the history of philosophy and theology depend on a clear understanding of Adps, like the *en* in Greek *en Xristô* "in Christ" (Deissmann 1892, cited by Brøndal 1950: 3).

5.2.3 *Adps and idiomaticity*

If we define idiomatic phrases as syntactically uncommon associations of words, whose meaning cannot unmistakably be deduced from an analysis of their constitutive parts and which do not accept some operations such as asking a question, then certain Adp-phrases in many languages, especially Adp-phrases headed by short Adps like those mentioned in Section 5.2.2, are idiomatic. Consider (17):

(17) ENGLISH (Rauh 1991*b*: 195–203)
    a. *he had a drink **on the quiet/on the sly/on the cheap***
    a′. **he had a drink in the quiet/in the sly/in the cheap*
    a″. **does he often have drinks on it?*
    b. ***on balance/on second thoughts/on the whole/on the other hand,** the weather was good*
    b′. **at balance/at second thoughts/at the whole/at the other hand, the weather was good*
    b″. **where was the weather good?*

These examples show that in idiomatic Adp-phrases like those in (17a), the Adp may not be replaced by any other, even a homonymous one; nor may the governed term in such idiomatic Adp-phrases be replaced by an anaphoric pronoun, or the whole Adp-phrase be questioned. Thus, even though there is, as in many other cases of idiomaticity scale, a difference between (17a) and (17b) in terms of idiomaticity, *on* is here an illustration of the semantic phenomenon by which the meaning of an idiomatic Adp-phrase cannot result from the combination of those of the Adp and its governed term, as in (18a) and (18b):

(18) ENGLISH (Rauh 1991*b*: 196)
    a. *he stayed **on** the boat*
    b. *he relied **on** his strength*
    a′. *where did he stay?*
    b′. ***on** what did he rely?*

Although it is not possible to substitute another Pr for *on* in (18b) as it is in (18a), which accepts substitution by *within*, both sentences accept questions like those yielding (18a′) and (18b′).

In other cases of idiomaticity, it is not only the Adp-phrase, but the whole sentence where it occurs, that cannot be interpreted short of already knowing the meaning as being that of a frozen expression. This applies to such examples as *to send someone to kingdom come*, French *mordre les pissenlits par la racine* (literally "to bite the dandelions by their roots") or German *ins Gras beissen* (literally "to bite into the grass"), both meaning "to be dead". Such idioms are abundantly present in all languages, death being, with violence, money, and sex, among the most treated topics in everyday life worldwide. I will only recall Celtic languages, which possess a wealth of idiomatically used Adp-phrases having such meanings.

The common property of all these idioms is that they are not semantically compositional, or are analysable only to some extent. Even though the border is flexible, this property makes them different from most of those based on the Adps which will be presented and distributed in three main semantic areas below.

5.2.4 *The role af Adps in diachrony as sources of new units*

This diachronic role of Adps in many languages has been studied in Chapter 2 (Section 2.5), which was devoted to a full characterization of Adps, including their role in the process of new unit production. Let it be recalled here that attributive/allative Adps play a major role in the making of infinitive morphemes, which is semantically quite understandable, given the originally purposive/allative/dative meaning of the infinitive. Other facts presented in Section 2.5 are also explainable in semantic terms: Old Egyptian suressive and essive markers yield, respectively, a present tense and an equative meaning; Old Egyptian "towards", and Mauritian Creole "for", both yield a future marker; Poitou regional French "(be) at" and Mbum comitative both yield a progressive marker.

5.3 The semantic system of Adps in crosslinguistic perspective

In this section I will return to the table of Adps from the semantic point of view, which appears as Table 5.1 on pp. 261–2, and will comment on this table (5.3.1). I will then give some idea of the polysemic nature of Adps and adpositional systems (5.3.2). Finally, I will examine each of the three semantic domains marked by Adps (5.3.3).

5.3.1 *The semantic system of Adps as shown in Table* 5.1

The semantic domains distinguished in Table 5.1 are as in (19):

(19) THE DOMAINS OF MEANING IN TABLE 5.1
   - domain of core meanings
   - domain of non-core meanings, which can itself be divided into
     - spatio-temporal meanings
     - non-spatio-temporal meanings.

Such a presentation meets the requirements of a strictly linguistic method, which stresses the distinctive features, and thus uses X vs. non-X types of distinctions. The core meanings can also be called actancy meanings, since they concern the grammatical functions of subject, object, indirect object, and adnominal complement, respectively marked by the agentive, patientive, attributive, and possessive markers. The two semantic domains within the non-core meanings have been called peripheral in Chapter 4 (Section 4.1.2), which is a syntactic chapter, but in the present chapter, they are called the spatio-temporal and non-spatio-temporal domains. They could also, following a more common and less strict method of division, be presented, respectively, as spatio-temporal and relational or notional. This would yield (20):

(20) ANOTHER POSSIBLE CLASSIFICATION OF THE MEANINGS OF ADPS AND
      CASE AFFIXES
   - the domain of core meanings
   - the domain of spatio-temporal meanings
   - the domain of relational, or notional, meanings

The complements belonging to the non-core or peripheral domains, which are commonly opposed, together, to the core or actancy domain, are also called in the western, and particularly French, tradition, *circonstants*, a term taken from Tesnière (1959) and which can easily, as I have done in the beginning of Section 4.1, be transposed into English as *circumstantial (complements)* or *circumstantials*. These terms correspond to what the English tradition calls *adverbials*. The fact that the label *adverbial* is quite widespread in linguistic terminology should not make us forget that it is both confusing and less accurate: confusing, because *adverb* refers to a category, not to a function, and many adverbs, for example quantity adverbs like *very*, do not express circumstances, unlike Adp-phrases, even when there seems to be a semantic equivalence, like the one between *very* and *to a (high) degree*; *adverbial* is also less accurate than *circumstantial*, because it says nothing of the semantic content of Adp-phrases and case-marked complements, all of these syntactic units

expressing, from the semantic viewpoint, circumstances of the situation or action, etc., referred to by a sentence in any language.

It is interesting to note that certain other terminological traditions also use the notion of circumstantial complements. Thus, in the works of Arabian grammarians of the ninth–tenth centuries, like Az-Zaǧǧâǧî (337/949) (1957), spatial and temporal complements that take the accusative case in Arabic, as illustrated in examples (31a', c, d) in Chapter 4, and that express the *mafʿûl fîhi*, namely "this in which the action is carried out", are called *ẓurûf*, a term which precisely means "circumstances". Interestingly, this term also means "receptacles". Thus, space and time are viewed as constituting what contains the actions and states expressed by the predicate. In fact, the Arabs did not extend this view to Adp-marked adverbial complements, but this is simply for morphological reasons: it seemed to them (cf. Hamzé 1998: 36) that these complements, being in the genitive-dative required by the Pr, are thus too distant from the verb to be genuine circumstances.

To cover all the particular terms that constitute the second column in Table 5.1, the general term could be "cases", according to a widespread use, which dates back to the Latin and Greek grammatical tradition, taken over, as far as the twentieth century is concerned, by Hjelmslev (1935–7), Meinhof (1938), and Fillmore (1968). Nevertheless, I have chosen to speak of semantic functions, an expression which, although less short than "case", seems more precise, even though it could be argued that core meanings are more grammatical than non-core meanings, to which the expression "semantic functions" might seem to apply better. It remains that "semantic functions" is more neutral than "case", and thus seems more convenient in a book devoted to Adps. It is of course true, however, that there is only one inventory of semantic functions, despite the differences, studied in Section 2.2.2, between case affixes and Adps. A further justification of this terminological choice is that the difference between Adps and case affixes does not concern only the geographical spread and language families, but also the distribution over semantic functions.

Crosslinguistically, Adps are much rarer than case affixes as core function markers, alhough they are not unattested in this function, but Adps are more frequent than case affixes as non-core function markers (cf. Section 4.1.2.2 and (16)–(17) therein). And within the non-core semantic area, spatio-temporal Adps outnumber non-spatio-temporal ones, which often have themselves, historically, a spatial origin. In some languages with both Prs and Pos, there seem to be some semantic differences between the two types. Thus, Heath (1999: 103, 108) claims that in Koyra-Chiini, which, although it is VO, has many Pos, these Pos have a more "basic" meaning, and Prs a more "specialized" one,

which seems to imply that the former are more often spatio-temporal than the latter, which are themselves more often notional.

In Table 5.1, I propose a specific terminology to characterize Adps and case affixes. To my knowledge, no such terminology has so far been proposed in a book-length study. The reason for this is that, as noted in Section 1.2, although many books, handbooks, and articles are either monographs presenting, often with much detail, the case system of a given language, or general studies on Prs or, more rarely, Pos, across languages, no general examination has so far been devoted to the semantic system of all Adps on a wide crosslinguistic basis. However, in one of the few monographs on Adps in a particular language (Hagège 1975), a semantic framework is proposed, which may be taken as having a much more general scope. I suggest, there, to distinguish between three domains, which are successively call *actanciel*, *spatio-temporel*, and *relationnel*, the last one grouping all the adverbial complements which are not spatio-temporal.

In the present chapter, I have taken over some aspects of this work. I have strived to also use here Latinate terms ending in the suffix *-ive* throughout. The term *instrumentive*, for instance, will not be difficult to understand, since it is not very different from the more usual *instrumental*, which is used in the present book, following the tradition, first in order to refer to case affix marking as opposed to the instrumentive semantic function, second in such usual expressions as "instrumental compounds", "instrumental complement", "instrumental predicate", "instrumental suffixes", and "instrumental markers". I have taken over some of the terms I used in Hagège (1975), except for a few ones, like *collative*, which I had coined on the supine *collatum* of *conferre* "to compare", and which now seems to me less transparent than *comparative*. I have added here new terms for functions not mentioned at the time of writing this 1975 book.

It should be kept in mind that the terms ending in *-ive* in Table 5.1 all refer to semantic functions, and not to forms, nor to the person, object, place, notion, etc., whose linguistic manifestation is the governed term of an Adp. *Attributive*, for example, is the name of such a function, while *beneficiary*, *receiver*, *addressee*, etc. refer to the person whose semantic relationship with the syntactic centre is marked by an *attributive* Adp. Similarly, *accusative* is the classical name of a grammatical case, inherited from the Greek (*aitiatikê (ptôsis)*), and (in translation from Greek) Latin terminological tradition, but it is not the name of a semantic function, hence the choice of *patientive* instead in Table 5.1. *Ergative* is also the name of a case-affix. This is why I prefer to avoid its use when referring to a semantic function, despite common practice in contemporary typology. Linguists following this practice even call ergative some languages which, although they have no specific ergative case, treat in

the same way morphologically, like those which have an ergative, the unique participant of a mono-actancial verb and the patient of a bi-actancial transitive verb, for example by putting both of them in the genitive, a characteristic of Eskimo languages (like Inuktitut) and Adyghe. It seems better, in all these situations, to refer to the semantic function in question here as *agentive*.

My intention in using a Latinate terminology is both to take traditional labels into account and to provide linguists with terms they can easily adapt to their needs, since most of these terms are transparent if one knows the Latin root: -*essive* and -*lative* in II A refer to static and non-static events (*lative* can apply to the letter). For example, *interlative* refers to the move towards a place located between two points or two persons. To avoid the religious connotation of *oblative*, I use another dynamic suffix, -*versive*, and call *obversive*, despite the use of *obverse, obversion*, and *to obvert* in logic, the move towards someone's face or the anterior part of a thing. I also use -*versive* with *super-*, to avoid *superlative*. I keep -*lative* elsewhere, judging it wise, for example, to eschew *subversive*. ... Still, some of the terms I am introducing here require an explanation:

- *secutive*: I coin it on the past participle *secutus* of the deponent Latin verb *sequi* "to follow";
- *pertentive*: the Latin verb *pertinere* "to concern, to regard" has no supine, so that I use, to coin this term, the supine *tentum* of the simple verb from which *pertinere* is derived, namely *tenere*. As stressed in Section 2.4.2.5, pertentive markers should not be confused with topicalizers, another word class, even though it is true that unlike Japanese, Korean, Aymara, etc., most languages do not have specific topic markers, and use, for that purpose, pertentive Adps and other, primarily intonational, means;
- *roborative*: I coin this term on the supine of the verb *roborare* "to give a firm basis to, to strengthen";
- *hypothetical*: another expression referring to this meaning would be *reality condition marker*. I have, presently, no available English term in -*ive* to designate this semantic function. Many languages which possess the corresponding conjunction, that is *if* in English, do not seem to possess the corresponding Adp. It is significant, for instance, that those languages, creoles among others, which have recently acquired the conjunction have not forged the corresponding Adp. Thus Bichelamar (Vanuatu) has made *sapos* (on the model of English *suppose*), but it has no equivalent of *in case of* (on terms governed by hypothetical Adps, cf. Section 5.3.3.5).

I will present in Section 5.3.3 some further comments on the terminology adopted in Table 5.1.

5.3.2 *Adps and polysemy*

An assential characteristic of all linguistic units, whether "content" or function words, which is not unrelated to the nature of meaning as a fuzzy, prototypical rather than discrete, contextual rather than absolute, phenomenon, namely polysemy, is especially developed in Adps, where local, temporal, and other semantic categories apparently melt together more easily than in case affixes (cf. Austerlitz 1980: 240). One of the results of this situation is that it often happens that there is a choice between two or more Adps to express a certain meaning. We will see some aspects and theoretical consequences of this property in this section.

In most languages some Adps, often materially shorter than the rest of the category, require entries in dictionaries which are longer, sometimes much longer, than all those for lexical units. I will study Adp polysemy in general (5.3.2.1), then in a language-particular perspective (5.3.2.2), and finally I will present some remarks on the link between this approach and the typological device of cognitive maps (5.3.2.3).

5.3.2.1. *Polysemy in adpositional systems in general*   In many languages one notes polysemic phenomena that relate together important semantic areas. One of these phenomena reflects what Blansitt (1988) calls the Functional Contiguity hypothesis, according to which if dative and locative are marked in a language by the same morpheme, it will also mark allative; if patientive and allative are marked by the same morpheme in a language, it will also mark dative. This polysemy, which might seem surprising when one thinks that locatives, unlike allatives, are motionless, is also attested in affix case systems, like that of Manchu for instance (cf. Kilby 1983: 55–6). Another widespread polysemy involves allatives and purposives (cf. Rice and Kabata 2007: 459). Similarly, attributive and purposive are often expressed by the same Adp, for example English *to*, in front of a pronoun as in

(21)   *I gave it to him* (attributive meaning),

as well as in front of an infinitive as in

(22)   *he wrote the letter to express his joy* (purposive meaning).

Other cases of general polysemy are (cf. Hagège 1982: 44–6):

- agentive/attributive: Chinese, Classical Greek, Georgian, Latvian, Dravidian languages, but also French in causative structures like *il lui a fait faire un travail* "he had him do a job";
- patientive/allative: in Indo-European and Uralic, the accusative case comes from an old (al)lative case;

- possessive/attributive: this is a widespread polysemy, at least in certain language families, like Oceanic;
- inessive/allative: English *in*, French *à* are among the many examples of this widespread polysemy;
- allative/comitative: among European languages, English and French use *to* and *à* as well as *with* and *avec* to mark complements of many predicates, like *to talk/parler, to associate/associer, linked/attaché*, etc. In other languages, this polysemy is also widespread: in Indonesian, for instance, one says *bicara pada/dengan = to talk to /with*;
- comitative/instrumentive (cf. Section 5.3.3.4.c);
- spatial secutive/notional secutive: *secutive* does not belong only to the spatio-temporal non-static semantic area, where the Adps having this semantic function refer to a move along the governed term. I have placed *secutive*, in Table 5.1, just at the border between spatio-temporal and non-spatio-temporal, because it also has a non-spatio-temporal meaning: the governed term of *secutive* Adps can also, maybe by a metaphoric transfer of the spatial move along something to the notional correspondence with something, refer to an opinion, attitude, order, discourse, etc., according to which or in conformity with which the state of affairs denoted by the predicate occurs. Not only is the notional secutive historically and metaphorically derived from the spatial secutive, but in addition the presence of the former in a language implies that of the latter. Hence the following hierarchy:

(23)   THE SECUTIVE IMPLICATIONAL HIERARCHY:
        spatial secutive > notional secutive

- inessive(~adessive~suressive~secutive)/instrumentive. Consider (24), which provides an illustration of a type of Adp polysemy which is far from being limited to English, and is, in fact, quite widespread crosslinguistically:

(24)   ENGLISH (Blake 1994: 176)
        a. *wash the cloth **in/with** water*
        b. *cook meat **on/in/with** fire*
        c. *carry wood **on/with** shoulder*
        d. *come **on/by** horse*
        e. *go **along/by** means of the back road*
        f. *see someone **in/by** means of the firelight*
        g. *mix flour **in/with** water.*

As expected, there are many other cases of Adp polysemy, some of which will be mentioned later in this chapter (cf., among others, Sections 5.3.3.4.d and 5.3.3.4.e).

5.3.2.2 *Language-particular examples of polysemy*   Whatever the language, one and the same Adp or one and the same case affix may have widely diverging senses. Consider (25)–(28):

(25)   FRENCH
    a. *je suis **dans** la cour*
       'I am in the yard'

    b. *je sors **dans** la cour*
       'I am going out to the yard'

    c. *je me promène **dans** la rue*
       'I am strolling about the streets'

(25′)   SPANISH (Pottier 1962: 339)
    a. *estoy **en** el patio*

    b. *salgo **al** patio*

    c. *me paseo **por** el patio*

(26)   (colloquial) FRENCH
    a. *le bureau est **après** la salle à manger*
       'the office is behind the dining-room'

    b. *la clé est **après** la porte*
       'the key is on the door'

    c. *il est venu **après** elle*
       'he came after her'

    d. *il en a **après** eux*
       'he is angry against them'

(27)   SWAHILI (Racine-Issa 1998: 189–90)
    a. *u-na-jua*   *nyumba y-ao?—Ndio, **kwa** Haji Tumbo*
       2SG-with-know house   CL9-CONN.Adp.3PL
       'do you know their house?—yes, it's Haji Tumbo's'

    b. *mbele*   *y-ake*   *ipo*   *nyumba rangi*
       in.front.of CL9-CONN.Adp.3SG there.is house   colour
       ya   *buluu **kwa** weupe*
       CL9.CONN.Adp blue   with   white
       'in front of it there is a house which is blue with some white'

(28)   KWAMERA (Oceanic, Eastern Malayo-Polynesian, Austronesian,
        Solomon Islands) (Lindstrom and Lynch 1994: 18)
        Kwamera Prs:

ia	locative (proximate), temporal, instrumentive, comparative
few	locative (distant)
ti	benefactive, causative, dative, future, purposive, vocative
mi, mine	benefactive, dative

One study, among many others, of the semantic versatility of Adps is, as far as French is concerned, Spang-Hanssen's (1963) book, in which the French Prs *à*, *de*, and *en*, known to have a very large area of use, are called "colourless prepositions" ("prépositions incolores"). The French Pr *dans* is also very polysemous, as shown by (25a–c), which only illustrate a few of its many uses. The examples in (25′a–c) show that a language closely related to French, Spanish, uses three different Prs to express the same meanings as (25a–c). Among other examples of polysemic Adps, one can cite French *après*, which has a distant spatial, a contiguous spatial, a temporal, but also, in colloquial uses, an adversative meaning, as shown, respectively, by (26a), (26b), (26c), and (26d). Swahili *kwa* can mark either the apudessive, as in (27a), or the comitative, as in (27b), even though some authors treat these uses as corresponding to two distinct Prs, because they consider that the *ku* class prefix here associated with the connective Pr *a* is the class 17 morpheme in (27a) and the class 15 morpheme in (27b), while they are one and the same morpheme, as shown here in Section 3.4.6.5. Another example is provided by Oceanic languages, which generally have a rather small inventory of Prs, most of which, however, have a fairly wide range of meanings, a situation "explainable" by a strategy adopted by speakers as **language builders** (cf. Hagège 1993: chs 1 and 2) in order to adapt to the contradiction between the high number of semantic needs and the low number of means of expression. An illustration of this characteristic feature of Oceanic languages is provided by Kwamera, as seen in example (28).

Many other examples of versatile Adps could also be given. To mention only two of the most impressive ones, Classical Arabic *'alâ* can mean, depending on the context, "on", "onto", "over", "(local) at", "(temporal) at", "since", "beside", "past, through", "about", "against", "despite", "than", "like" (cf. Procházka 1993: 37–67); and among the meanings of Japanese *ni*, we find "(local) in", "(temporal) in", "towards", "to", "for", "(belonging) to", agentive "by" with a passive verb, "from", "(resulting) in", "in the manner of", "by means of", "despite", "than", "as regards", "because of", "in addition to" (cf. Rice and Kabata 2007: 456–8).

Finally, an important remark is in order here: while syntactic diversity may be important, as shown by example (123) in Chapter 4, semantic versatility is often almost as important, as can be seen by comparing this example with that given below as (29), where the semantic relations expressed by the English Pr *on*, illustrated for syntax in this example (123) are, successively, concrete spatial in (a), metaphoric spatial in (b), temporal in (c), causal in (d), secutive in (e), mediative in (f), and instrumentive in (g):

(29)   ENGLISH (Rauh 1991*b*: 170–1)

   a.   *the book is **on** the table*

   b.   *discussions **on** a higher level are useful*

   c.   *Shakespeare was born **on** 23 April 1616*

   d.   *she was brought before court **on** a charge of child neglect*

   e.   *he read the book **on** my suggestion*

   f.   *Janet spoke **on** a rising tone*

   g.   *they flew **on** one engine*

5.3.2.3 *Cognitive maps*   To conclude this brief examination of polysemy in adpositional systems, it is useful to recall that an analysis in terms of polysemy does not exclude other analyses, such as those proposed by linguists using what has been called mental or semantic maps (cf. Anderson (1986) to cite only one of the first such attempts), or cognitive grammar networks, among others in Langacker (1988). These cognitive networks arrange polysemic structures spatially. Such a spatial arrangement could be applied, in one language, to one, or a group of, semantically related Adps. This does not mean that the tabular disposition reflecting these cognitive networks could not have a universal application, only that this is not, apparently, its explicit scope.

The polysemic analysis, on the other hand, aims to unearth semantic relationships that have, at least as attempts to be tested, a universal purpose. In a similar way, the purpose of a semantic map is to reflect language-independent features, that are claimed to have their basis in the universal organization of human cognition. But, since the strategy by which a given semantic function is expressed by clusters of cognitively related Adps is particular to one language or to a group of languages with a common cognitive organization, one has to draw many semantic maps of specific sub-systems of semantic functions of Adps. It seems that Table 5.1, and the comments on it in Sections 5.3.1, 5.3.2.1, and 5.3.2.2, contain the elements of an interpretation in terms of the cognitive maps approach.

However, a structure can be proposed, which shows the Adp-marked Semantic Domain Hierarchy:

(30)   ADP-MARKED SEMANTIC DOMAIN HIERARCHY
        dative/allative → spatio-temporal preessive and postessive → motivative

The progression in (30) should be read as follows: if a language has one or more Adps marking the motivative function, it will have one or more marking the spatio-temporal pre- and postessive functions, and if it has that, it will have one or more Adps marking the dative and allative functions.

5.3.3   *An examination of each of the three semantic domains marked by Adps*

In this section, I do not pretend to examine, even in a score of selected languages, the detail of all the semantic contents of Adps in all their uses. To my knowledge, this Sisyphean task has never been done. It is not likely to be done very soon. Anyway, some among its most useful aspects are treated by good dictionaries of individual languages. Various monographs also tackle a specific part of this work, for example Benveniste (1966) on what he calls the sublogical system of Latin Prs, or Hottenroth (1991) on the uses of French *dans* in its inessive meaning. What I intend to do here is to show (a) some of the main characteristics of the semantic domains marked by Adps; (b) the relationships both inside and across these domains; (c) the semantic subdomains into which domains are subdivided by semantic affinities, like static, non-static; (d) within each of these, other subdomains: for example the inessive–apudessive–adessive, the preessive–postessive, the circumlative–mediolative–interlative, the instrumentive–mediative–motivative, or the pertentive–roborative subdomains.

I will therefore study the core domain (5.3.3.1), the spatial domain (5.3.3.2), the temporal domain (5.3.3.3), and the non-spatio-temporal domain (5.3.3.4). In a last subsection (5.3.3.5) I will speak of unattested semantic functions and mention the problem of name-worthy cognitive contents.

It is also a widespread feature of Adps that they are a sign of the semantic variation of a verb when their presence vs. absence corresponds to two different meanings. An example is German, in which the meaning of many verbs changes depending on whether they are followed by the accusative case suffix only or by a Complex Adp made up of a Pr + the accusative case it requires, as shown by the semantic contrast between (31a) and (31a′), as well as between (31b) and (31b′):

(31) GERMAN

  a. *den Ball anspielen*
   'to pass the ball'

  a'. *auf einen gewissen Text anspielen*
   'to allude to a certain text'

  b. *jemanden warten*
   'to take care of someone'

  b'. *auf jemanden warten*
   'to wait for someone' (in this example, *auf jemanden* could also be
   treated as an adject (cf. Section 4.1.2.4)).

5.3.3.1 *The core domain* The core domain is that constituted by Adps marking functions which are also called grammatical, and considered as higher in the hierarchy of functions. We saw this in Section 4.1.2.2, where it has been stressed that case affixes are much more frequent than Adps as markers of these functions. Let it be added that in languages without case affixes, two of these functions, namely, S and DO, when they are those of nouns (not pronouns), are marked by word order, as, for instance, in English, Romance languages other than Romanian, Mandarin Chinese, and the majority of Niger-Congo languages.

It is also important to stress the functional output of core Adps. To mention only two languages, out of seven Prs which are the most used ones, namely French *de, à, dans, par, pour, avec, sans,* and their Spanish equivalents (in the same order) *de, a, en, por, para, con, sin,* three—French *de, à, par* and in Spanish *de, a por* ("of", "to", "by")—belong to the core domain (cf. Pottier 1962: 334).

Attributive is another semantic function which can also be considered as belonging to the core domain. I have chosen not to use *dative* as a label for this function, because *dative* is traditionally associated with case affix in Latin, Classical Greek, Sanskrit, and other inflectional languages, rather than to the semantic function itself. I do not endorse the analysis, found in several authors (cf. Masica 1976; Keenan 1976; Sridhar 1979), of the dative as a subject marker in the many languages (especially in the Indian sub-continent) where a dative case affix (rarely an Adp) marks the experiencer of affects (for a critique of the notion of "dative subject", cf. Hagège 1993: 113–20, 2006a: 106–9). I have not chosen, either, the term *benefactive*, which refers to case affixes and Adps marking the beneficiary as benefitting by the situation. Moreover, certain languages distinguish the two meanings: Souletin Basque, for example, has an

attributive case suffix and a benefactive one, respectively -*(ir)i* and -*(et)an*. In other words, by retaining *attributive* only, I take it as a cover term for the set of terms in this semantic area.

Similarly, I prefer not to use *genitive* for a fourth function, which can also be assigned to the grammatical domain. I have called it *possessive*, even though I am aware that the relationship it marks is not always or necessarily possession. Not only is genitive, in its traditional as well as modern uses, the name of a case affix rather than a semantic function, but in addition, it is also applied to certain types of adjects (cf. Section 4.1.2.4) that are so marked, and more generally, in declension languages, to complements whose genitive marking makes part of the valency of a verb or is lexically required. The term *adnominal* could also be proposed here, but it is strictly morphological and syntactic, so that it seems less convenient, given that the present chapter deals with meaning, than *possessive*, despite the weaknesses of the latter term. However, I have kept the term *genitive* in the preceding chapters, in order to take trad-itional terminology into account, and also for the sake of precision in literal translations. Thus, of the two genitives of Souletin Basque, again, one, -*ko* (cf. example (32b) in Chapter 2) is a locative genitive, while the other one, -*(a)ren* (cf. example (44) *ibid.*), is a possessive genitive; *ko* illustrates the syntactic and semantic link which exists between place and possessor, viewed as a place. This link is well attested in Mandarin Chinese (cf. Hagège 1975: 332–3) and in languages without verbs of pos-session, like Russian and Maghrebi Arabic, where "I have" is expressed as "at my place is" (cf. examples (114f.i–ii) in Chapter 4).

5.3.3.2 *The spatial domain*   In this section I will present some general facts (5.3.3.2.a), then study some important markers of semantic functions, like those I call *apudessive* (5.3.3.2.b), *ablative* (5.3.3.2.c), *terminative* (5.3.3.2.d), *interessive* (5.3.3.2.e), and the complex markers found in North Caucasian languages (5.3.3.2.f). Finally I will show that there is an interesting evolution, reflected in the ontological development of languages, from the topological to the dimensional (5.3.3.2.g).

5.3.3.2.a General facts   It is important, at the start, to distinguish the notions of space and place. As Tuan says (1977: 3), "place is security, space is freedom: we are attached to the one and long for the other". However there is no other conceivable place, at least on earth (including the seas), than related to a part of space. The semantic functions in Table 5.1 II.A refer to positions, or moves made with respect to positions, but these are all defined as occupying a portion of space, and reciprocally, space is

defined, to a large extent, by the places which are located in it. Places themselves are often loaded with a certain meaning, as being in intimate relationship with special events.[1]

The spatial domain is the richest in Adps, in pratically all languages having more than one, two, or three Adps. The inessive, the illative, and the ablative are often considered as the three fundamental spatial meanings, and this triad is sometimes enriched with a fourth member, the perlative, because it is a habit of people educated in the humanities to associate in thought the four questions which are answered by these four markers, namely the questions expressed in Latin by *ubi? quo?, unde?,* and *quā?,* corresponding respectively, in written English, to *where?, whither?, whence?,* and *wherethrough?* The semantic functions of static spatial Adps, often rich in pychological parameters (cf. Coventry and Garrod 2004), are, as seen in Table 5.1:

- inessive
- apudessive
- adessive
- abessive
- obessive
- suressive
- superessive
- subessive
- preessive
- postessive
- circumessive
- medioessive
- interessive

The semantic functions of non-static spatial Adps are:

- illative
- allative
- terminative
- ablative

---

[1] An illustration of the attachment to place is provided by the plea which the Romanized Greek historian Appian attributes to a citizen of Carthage addressing himself to the Romans when, at the end of the third Punic War (146 BC), they were about to destroy Carthage: "We beseech you, in behalf of our ancient city [...], in behalf of the many temples it contains and of its gods who have done you no wrong. [...] Deprive not the tombs of the dead, who harm you no more, of their offerings [... ,] spare the city's heart [...] and all else that is dear and precious to the living" (cited by Tuan 1977: 151).

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- obversive
- surlative
- superversive
- sublative
- prelative
- postlative
- circumlative
- mediolative
- interlative
- perlative
- prolative
- secutive

In Table 5.1 spatio-temporal semantic functions, both static and non-static, are not ordered alphabetically but following the order often found in hand-books, that is: "in", "beside", "out", "in front", "above", "under", "before", "behind", "around", "among", "between".

The correspondence between static and non-static is well known. One can

- be in a place (*inessive*) or move to it (*illative*);
- be in contiguity with a place (*adessive*) or move towards a position in contiguity with it (*allative*);
- be in front of a place (*obessive*) or move to a position in front of it (*obversive*);
- be on it (*suressive*) or move to a position on it (*surlative*);
- be above it (*superessive*) or move to a position above it (*superversive*);
- be under it (*subessive*) or move to a position under it (*sublative*);
- be before (*preessive*), behind (*postessive*), around (*circumessive*) a place or person(s), or move to these positions (respectively *prelative, postlative, circumlative*);
- be among (*medioessive*) or between (*interessive*) people or things located in a place, or move to these positions (respectively *mediolative, interlative*);
- be at the starting point of a move (*abessive*, this term being used here with a strictly spatial meaning, not covering the "without" semantic function, which I call *exclusive*: cf. Section 5.3.3.4.a), or move from a place (*ablative*);
- move across a place or person (*perlative*);
- go past a place or person (*prolative*);
- follow a place or person (*secutive*).

Meanings	Semantic functions			
	Governed term = place or person		Governed term = things or people	
	static	**non-static**	**static**	**non-static**
'in', 'at', 'into'	INESSIVE, APUDESSIVE	ILLATIVE		
'beside'	ADESSIVE	ALLATIVE		
'up to'		TERMINATIVE		
'outside of', 'from'	ABESSIVE	ABLATIVE		
'on'	SURESSIVE	SURLATIVE		
'above'	SUPERESSIVE	SUPERVERSIVE		
'under'	SUBESSIVE	SUBLATIVE		
'in front of'	OBESSIVE	OBVERSIVE		
'before'	PREESSIVE	PRELATIVE		
'behind', 'after'	POSTESSIVE	POSTLATIVE		
'around'	CIRCUMESSIVE	CIRCUMLATIVE		
'among'			MEDIOESSIVE	MEDIOLATIVE
'between'			INTERESSIVE	INTERLATIVE
'across'		PERLATIVE		
'past'		PROLATIVE		
'along'		SECUTIVE		

Table 5.2: Semantic functions of spatial Adps

Table 5.2 shows that four functions, namely terminative, perlative, prolative and secutive, have no static counterpart. This is directly related to the fact that these four functions involve a move. We also note that the meanings of medioessive, mediolative, interessive and interlative Adps require that the governed term should be plural, formally and/or semantically.

To these spatial configurations, certain languages add various parameters, as outlined here:

- a distinction between empty and saturated space (e.g. Korean);
- a difference between precise and approximate locations: English *towards the end of the century*;
- a contrast + vs. - active inessives: Japanese *de* (Chapter 2, ex. (28)) vs. *ni*;
- a difference between two conceptions of a place in space: as an entity in itself, or as an inherently locative relation: this has been studied in Section 2.4.2.4.b, where I have introduced the notion of *chorophorics* and that of *lococentric* languages (cf. also Hagège 1982: 44–6);
- a difference in terms of dimensions between the places in which the governed term of an inessive marker can be located. In Danish, for instance, two inessive Prs may be used depending on dimension: *paa* if the reference place is small, and *i* if it is bigger. Thus, one says *i København*, but *paa Frederiksberg*, referring, respectively, to the capital of Denmark and to a smaller town. Islands require *paa* if they are small, but some islands which, depending on the speakers' choice, can be considered to be small or big can receive either *paa* or *i*. Speaking of Iceland, for example, one can say *paa/i Island*;
- another difference, in terms of distance, between two obessives and between two spatial postessives. Consider (32):

(32)   PALAUAN (Josephs 1975: 281–2)

    a. η   *ηar r ηi:*   *a*   *kərrəkar r a*   *məd-al*
        3SG exist r 3SG.EMPH DEPR trees   r DEPR front-3SG.POSS
        a   *bl-ik*
        DEPR house-1SG.POSS
        'there are trees in front of my house'

    a'. η   *ηar r ηi:*   *a*   *kərrəkar r a*   *ηəlo*
        3SG exist r 3SG.EMPH DEPR trees   r DEPR front
        r a   *bl-ik*
        r DEPR house-1SG.POSS
        'there are trees in front of my house'

    b. *a*   *Toki* *a*   *d<il>əη'okl* *r a*   *ull-el*
        DEPR Toki DEPR sit<PST>   r DEPR behind-3SG.POSS
        a   *Droteo*
        DEPR Droteo
        'Toki sat right in back of Droteo'

b'. *a   ml-im   a   ŋar   r a   rəbai r a*
DEPR car-2SG.POSS DEPR exist r DEPR back   r DEPR
bl-ik
house-1SG.POSS
'your car is behind my house'

Examples (32a) (reproduced from (25c) in Section 3.3.2.2.a, where I gave the morphological analysis of the noun-derived spatial Prs of Palauan) and (32a') seem to have the same meaning, but in fact, the use of *məd-al* in (32a) implies that the trees are very close to the house, "possibly providing it with shade" according to Josephs (1975: 281–2), who says of *ngəlo* in (32a') that it implies that the trees are "perhaps across the road", as they are relatively far away. The same difference is to be found between *ullel* in (32b) and *rəbai* in (32b'): the former designates a location in space directly behind the participant, while the latter (also reproduced from Section 3.3.2.2.a) refers, in a more general way, to locations anywhere behind the participant, and rather far away. It is interesting to note that this difference between close and distant, both with the obessive and the postessive, is accompanied by a morphological difference: the nouns from which the Palauan obessive and postessive markers referring to close location are derived are possessible, while those marking distant location are unpossessible, and require a morpheme *r* before the governed term, providing thereby an illustration of the importance of iconicity. It can be added that the difference between close and distant in obessives and postessives is also found in other languages, among which are other Austronesian languages, such as Indonesian: in this language, both *depan* and *hadapan* mean "in front of", but the former refers to a distant location, and the latter to a close one.

We will now continue with some of the various parameters added by certain languages to the spatial configurations listed above:

- a distinction between different positions of the speaker. An example involving case affixes is Páez (Colombia), which has four case suffixes, depending on whether the body is vertical, horizontal, a little bending, or strongly bent down (cf. Nieves Oviedo 1994: 546). An example involving Adps is Fijian, which distinguishes between (33a) and (33b):

(33) FIJIAN (Eastern Malayo-Polynesian, Austronesian, Fiji) (Geraghty 1976: 507)
a. *sa: tiko e   waqa na   kato*
   PRS stay on(PROX.SUR) boat   ART box
   'the box is on the boat'

b. *sa: tiko **ma:i***   *waqa na   kato*
   PRS stay on(DIST.SUR) boat ART box
   'the box is on the boat'

Both (33a) and (33b) mean "the box is on the boat", but in (33a), the use of the proximal suressive Pr *e* means that the speaker is on the boat too, whereas the use of the distal suressive Pr *ma:i* in (33b) implies that the speaker is not on the boat.

- a distinction between a world-oriented intrinsic perspective and a human-oriented extrinsic one. This difference can be shown by comparing English with Hausa. Consider (34a–c):

(34)   HAUSA (West-Chadic, Chadic, Afro-Asiatic, Nigeria, Niger) (Hill 1974: 138–9, Hagège 2005a: 244)

a. *Ƙwallo ya-na*   ***gaba**-n*   *Audu*
   ball   3SG.PRS.S-be in.front.of-3SG.O Audu

a'. *the ball is **in front of** Audu*

b. *Ƙwallo ya-na*   *bayan-n*   *Audu*
   ball   3SG.PRS.S-be behind-3SG.O Audu

b'. *the ball is **behind** Audu*

c. *Ƙwallo ya-na*   *baya-n*   *telefo*
   ball   3SG.PRS.S-be behind-3SG.O telephone
   'the ball is behind the telephone'

c'. *the ball is **in front of** the telephone*

If the ball is in front of someone whom ego is facing, as well as if the ball is behind someone and ego is also behind this person and the ball, Hausa and English both use an Adp with the same meaning, respectively "in front of" in (34a–a'), and "behind" in (34b–b'). On the contrary, if the ball is in front of a telephone whose form is such that one can attribute this set a posterior face, which faces ego, and an anterior face, oriented in the opposite direction, the ball being between ego and the telephone, then English no longer uses the intrinsic axis from front to back, and ignores the fact that the telephone has an anterior and a posterior face: it treats it as a human individual, in front of which the ball is, whatever the face presented to the ball by the telephone, hence (34c'). As opposed to that, Hausa keeps to the intrinsic axis, in conformity to the more or less animist conception, found in many African cultures and mythologies, which views objects as spatial entities possessing their own structure. We thus have, here, a case of **animism in grammar.**

Adps of the non-static domain may, furthermore, be studied in terms of path functions. For some of these motion expressions, we get the following subsystem (cf. Jackendoff 1983: ch. 9):

- the ablative and the illative/terminative/surlative, etc. semantic functions correspond to bounded paths and are the linguistic expressions of two events, departure and arrival respectively, whose examples in English can be *out of the kitchen, from the entrance, off the roof,* for the ablative, and *into the kitchen, up to the entrance, onto the roof* for the illative, terminative, and surlative;
- the perlative/prolative and the allative semantic functions correspond, respectively, to routes that involve the act of passing and directions that involve any phase of motion oriented in a frame of reference. English examples are *through the kitchen, past the entrance, across/over the roof* for the perlative/prolative and *towards the entrance, down to the river* for the allative. An example of a full sentence with a prolative Adp-phrase is:

(35)   *he whistled* **past** *the graveyard*

Two or more of these semantic functions are commonly expressed together within one and the same sentence, for example ablative, perlative, and terminative in (36):

(36)   ENGLISH (Bohnemeyer *et al.* 2007: 503)
        Floyd went **from** *Rochester* **via** *Batavia* **to** *Buffalo*

One last observation concerns the distribution of case affixes and Adps: in languages with both case affixes and Adps, spatial *directions,* such as "into", "out of", "across", etc., will often be expressed by bound morphemes, while spatial *dimensions,* such as "inside", "above", "in front of", "beside", will tend to be expressed by independent morphemes like Adps. Such is the situation in Basque, Evenki, Nivkh, Inuktitut, Turkish, etc. (cf. Kilby 1981: 108, 120)).

5.3.3.2.b **Apudessive**   Although I have not retained terms other than *attributive* within its semantic area, for which I take it as a cover term, I do not do the same for *inessive*: I introduce in Table 5.1 a term which could be considered a special type of inessive, but which refers to an important semantic function, namely *apudessive*. I coin it from the Latin Pr *apud* "at (someone)'s (place)" to refer to a place in which someone lives or goes as a home. The best-described apudessive marker is French *chez*, etymologically derived from Latin *casa* "house". Chamoreau (2005: 191) uses the term *résidentiel* (English *residential*) to refer to the same function, marked by a

case affix -*o* in Purépecha, as shown in example (116d) in Chapter 4. I have cited other examples of apudessive marking, namely *ʿand* in (Classical and) Tunisian Arabic and *u* in Russian, in examples (114f.i–ii). Example (37) below is a further example of an apudessive Adp-phrase used to express the notion "to have", with a striking inversion between a. and b.:

(37) AWNGI (Central Cushitic, Cushitic, Afro-Asiatic, Ethiopia) (Hagège 1983: 114)

　　a. *ŋgə **da** aqi zəkwa*
　　　 house in man there.is
　　　 'there is a man in the house'

　　b. *aqi **da** ŋgən zəkwa*
　　　 man in house there.is
　　　 'the man has a house'

It seems to me that the semantic function apudessive is important enough to deserve to appear in Table 5.1, all the more so since 32 per cent of the languages in my corpus express the possessor as the place in which there is a possession.

5.3.3.2.c **Ablative**　Some languages distinguish between a "from" of motion and a "from" of transfer. Consider, for example, (38):

(38) INDONESIAN (Septiani Wulandari, p.c.)

　　a. *dia datang **dari**/ *daripada Jakarta*
　　　 3SG come   from   Jakarta
　　　 'he comes from Jakarta'

　　b. *dia terima hadiah ini   **dari**/ *daripada teman nya*
　　　 3SG receive present PROX.DEM from   friend 3POSS.SG
　　　 'he received this present from his friend'

　　c. *ini   (ber)beda **dari/daripada** yang itu*
　　　 PROX.DEM different from   NZR DIST.DEM
　　　 'this is different from that'

Only *dari* may be used as a "from" of motion, as in (38a) or in the abstract meaning of "from" with verbs of the "receive" semantic domain, as in (38b), while both *dari* and the Compound Adp *daripada* may be used as "from" of transfer, including the abstract transfer implied by the notion of difference, as in (38c). This notion of difference itself having a comparative implication, we can also understand why in some dialects of modern English, words expressing it are combined with the marker of the comparative of inequality, as in *different than* in informal(?) American usage.

5.3.3.2.d **Terminative**   The *terminative* semantic function belongs to the spatio-temporal semantic domain. But certain uses of terminative Adps correspond to an abstract meaning of the notion of final term, that is the notion of result. An example is the Japanese Po *kurai*, illustrated in (39):

(39)   JAPANESE (Kuwae 1980, 2: 769)
  hushigi-na   **kurai** *kare* *wa* *ochitsui-te*   *imashita*
  strange-ADJ.MK RES 3SG.M TOP be.calm-GER.MK be.PST.POL
  'he was so calm that this seemed strange (to me)'

In this sentence, the term governed by *kurai* is an adjective, and rather than treating *kurai* as a conjunction governing a clause with the meaning "be strange", it seems preferable to treat it as a Po with a resultative meaning. In Table 5.1, I have chosen to subsume the resultative semantic function under *terminative*. One reason for that is that it is often marked by Adps also used as terminative markers. This is shown by (40):

(40)   ENGLISH (Boas 2005: 451, fn. 9)
  a. *he shattered the vase **to** pieces*
  b. *he walks himself **to** death*
  c. *he laughed himself **out of** a job*

One could add a sentence I recently overheard in Berkeley, California: *I talked myself into the job,* more or less the same structure as (40c). In all these sentences the Adp-phrase marks a complement which refers to the result of an action. On could claim that this result, whether the arrival at or the departure from a certain point, is only metaphorically spatial. Furthermore, in the case of English, the relationships of resultative Adp-phrases with other structures go beyond the spatial domain. For example *to death* in (40b) and *out of a job* in (40c) cannot be replaced by *dead* and *jobless* respectively, and conversely, (41a) cannot be replaced by (41b):

(41)   a. *he wiped his plate clean*
  b. **he wiped his plate to cleanliness*

Despite these reserves, the resultative semantic function, whether constrained in its use as in English or not constrained, may be assigned to the spatio-temporal domain, not only because its markers are generally the same as terminative markers, but also because a result appears as the final step of a spatial or temporal process.

5.3.3.2.e **Interessive**   Semantic functions which involve two or more persons or things, namely the *medioessive* and *interessive* in the static domain, and the

mediolative and *interlative* in the non-static domain, may be semantically complex for this very reason. As an illustration, I will only mention the two Italian interessive Prs, which are not always easy to distinguish from each other: *tra* stresses the invariable aspect of the bilateral relationship, whereas *fra* is preferred when a more flexible relationship, or one between participants who are closer to each other, is intended, as in *fra noi* "between us".

5.3.3.2.f **Complex semantic functions (Daghestanian languages)**   I have not included in Table 5.1 complex semantic functions within the spatial domain, which are well represented in Daghestanian languages. In Table 5.1 the semantic functions expressed in English by the Prs *in, within* (− motion) and *to, into* (+ motion) are respectively introduced as *inessive* and *illative*. Those expressed by *at, by, near,* or *towards* are subsumed under *adessive* (− motion) and *allative* (+ motion). The semantic functions answering the Latin question *unde?* "from where?" are, in Table 5.1, the *abessive* (− motion), as in English *where are you from?* and the *ablative* (+ motion), as in *where is he coming from?* Some languages distinguish three kinds of such moves: from the inside of a source, from a position at it or close to it, and from a position on it. Hungarian, for example, has three case suffixes corresponding to these; meanings; taking over the terms referring to them in traditional Hungarian grammars, these are: ablative (as in *ház-tól* "from the house"), elative (as in *ház-ból* "outside of the house") and delative (as in *ház-ról* "from (on) the house"). I propose to call these semantic functions *abinessive* (to avoid *inablative*), *adablative,* and *surablative*.

But there are other complex meanings, like those marked by various combinations in Daghestanian languages. Thus, the main three spatial functions—the *inessive* (location at a place), the *illative* (motion to a place) and the *ablative* (motion from a place)—are combined, in Avar (cf. Comrie 1999: 109), not only with the position "under", which suggests adding to the *subessive* and the *sublative* in Table 5.1 a third semantic function: *subablative* but also with the positions "near" and "inside", marked by suffixes distinct from those for "in" and "at". Consequently, choosing the Latin adjective *proximus* for "near" and the Latin adverb *intus* for "inside", I propose the terms *proxinessive, proxillative,* and *proxablative* for "near", and the terms *intinessive, intillative,* and *intablative* for "inside". Another Daghestanian language, Kubachi Dargi (cf. Comrie 1999: 110), combines the position "in front of" with the ablative, which suggests adding to the *obessive* and the *obversive* in Table 5.1 a third semantic function: *obablative*: "from the position in front of". Other languages in this area, Tsez and Tabassaran, combine with the ablative, in addition, the position "among", hence the term *mediablative* which could be proposed.

Furthermore, Archi adds to the main three functions indicating direction another three functions: "towards", "up to", and "across", respectively called *versative, terminative,* and *translative* by Comrie (1999: 110). These three terms would have to be added to the prefixes *in-, int-, sur-, sub-,* and *prox-* to form new complex labels, if one wanted to take into account that Archi also distinguishes the orientations "in", "inside", "on", "under", and "near". Finally, Tsez, in addition to the twenty-eight combinations resulting from the association of its four directions—inessive, lative, ablative, and versative— with its seven orientations, namely "in", "at", "near", "on1" (horizontal sufaces), "on2" (non-horizontal surfaces), "under", and "among", has another twenty-eight combinations, resulting from the association of all these with a morpheme *-az(a)* indicating that the location is far from speaker and hearer. If, for instance (granting that we label the move from the non-horizontal "on" ("on2") *deventive* (DEV)), we want to coin a term to refer to such a complex combination as *-q-a:z-aj* (DEV-ABL-DIST, meaning "from above (distal) X"), the name of this semantic function would be something like *dist-dev-ablative*. *Distal dev-ablative* would not be much more felicitous, and the same can be said of *int-versative, sub-translative,* or *prox-terminative.*

Thus, if the neologisms proposed above for situations like the ones illustrated by Avar and Kubachi Dargi can be useful as labels for complex spatial case systems, those suggested for the other languages mentioned here are not proposed as labels to be adopted, but rather as evidence that it is not advisable to coin new terms beyond necessity. Let us not forget, in addition, that Daghestanian spatial case systems are uncommon, and that we are not dealing with Adps here, but with case affixes, except in the many situations in which what we have is in fact a Complex Adp (cf. Section 2.2.3.4): in Lezgian for instance, to take examples from the temporal area (cf. Gadžiev 1963: 126 ff.), the Pos *güğüniz* "after" and *kiligna* "because of" require the surablative and the attributive cases respectively. Let me recall, with respect to their morphological and syntactic characteristics, that what we have here, for all the markers mentioned above, are in fact case combinations, analysable either as complex case affixes (cf. Section 2.3.3.4 for Adps) or as one case governing the adverbial complement marked by the other(s) (cf. Section 2.3.2.2.c).

Such Daghestanian language combinations can be further illustrated by Northern Tabassaran (Daghestanian, Lezgic, Russia). This language, according to Magometov (1965: 324–7; [cf. also Hjelmslev 1935–37; Comrie 1999; Hagège 1984: 368–9, in which these facts are described]), has eight static case suffixes: -*'(V)* "in", *-h* "near", *-kk* "under", *-x^i* "at", *-γ^i* "among", *q* "behind", *-'in* "on1", *-k* "on2", which may be combined, in first position, with two dynamic case suffixes occurring in second position: *-an* "from" (ablative), and *-na* "to"

(allative). This yields many combinations, in fact complex cases, but not original cases, as the tradition has it, encouraged as it is by the search for outlandish or thrilling facts. This is reflected in the place assigned to Tabassaran by *The Guinness Book of Records* 1997, which dubs it a "most complex language", with no fewer than forty-eight cases (cf. the critique by Comrie and Polinsky 1999). Examples are, with a nominal stem *furi* "cart", *furi-kk-an* "from under the cart", *furi-q-na* "to the place behind the cart", etc. The semantic functions marked by the complex spatial markers appearing after *furi* in these examples are, respectively, subablative and postlative.

In addition, the eight suffixes referring in Tabassaran to a static position, as well as their combinations with the two dynamic suffixes, may also be followed by another suffix, *-ri*, meaning "with". How can two heterogeneous meanings, one spatial and one comitative, be combined on one and the same governed term? The answer is straightforward: two of the resulting combinations do not have any spatial meaning: *-'-ri* "by means of" (instrumentive), and *-hʲ-ri* "with" (comitative). In other combinations, *-ri*, which shows up as *-di* after an *n*, points to a more general location. One may say, for example, *furi-q-in-di* "towards the direction near the rear of the cart". In one combination, however, namely *-h-ri*, the meaning seems to be additional: "near and with", as in *armiri-h-ri* "near the man and with him" or "near and with the man". Thus, it appears that none of these case combinations constitutes any counter-example to the statement (cf. Section 2.2.3.1) according to which no noun-phrases in a natural language can be morphologically marked for more than one case.

5.3.3.2.g From the topological to the dimensional   There is an interesting evolution, reflected in the ontological development of languages, from the topological to the dimensional. To show this, let us begin with a comparison between the complex Daghestanian spatial case systems examined in Section 5.3.3.2.f and the spatial case system of two Uralic languages. That of Hungarian in which, as seen in section 2.2.2.4.c, the words traditionally presented in handbooks as case suffixes are rather, actually, defective forms of Pos, from which they come (cf. Creissels 2006: 268–9), combines the three orientations "in", "at", and "on" with the three directions inessive, illative, and ablative. Thus, in addition to the three ablatives which I have proposed, in (Section 5.3.3.2.f), to call *in-ablative, ad-ablative,* and *sur-ablative*, it has an inessive (*-ban*), an adessive (*-hoz*), a suressive (*-n*)), and three latives (an illative *-ba*, an allative *-nál*, a surlative *-ra*). The spatial case system of Finnish has only two orientations, "in" and "on", which it combines with inessive, illative, and ablative, to yield, respectively, *-ssa, -hVn, -sta* and *-lla, -lle, -lta*.

Now, it so happens that the limited Finnish system and the less limited Hungarian system contain exactly the first steps of the linguistic development of children learning to produce English, Italian, Serbian, Croatian, and Turkish Adps, as shown by Johnston and Slobin (1979), a work studying the learning process among natives. Even more striking, this development order parallels the passage from the acquisition of more topological relations, that is those without a deictic centre, like inessive and lative, to more dimensional ones (cf. Klein 1991: 77 ff., Seiler 1997: 108–12), which require a deictic centre, like preessive, postessive, interessive, etc. Drossard (1993: 44 ff.), studying Caucasian languages of the Avar-Andi subgroup in the light of Johnston and Slobin (1979) and Klein (1991), notes that in these languages the "in", "at", "on", and "under" semantic functions are rather realized as case affixes, while the "in front of", "behind", and "between" semantic functions tend to be expressed by Pos, these relations being more and more richly expressed as one passes from Avar to Aghul, across Lak, Udi, and Tabassaran. If this study and the data it uses turn out to meet general agreement, then it will have revealed an impressive convergence between the distribution of Adps vs. that of case affixes, the distribution of topological vs. dimensional areas of meanings of Adps, and the acquisition process of Adps by children.

5.3.3.3 *The temporal domain*   In this section, after general considerations (5.3.3.3.a), I will study the relative orders of spatial, temporal, and manner/instrument adverbial complements (5.3.3.3.b), then the temporal inessive (5.3.3.3.c), the temporal pre- and postessives, and temporal deixis in Adps (5.3.3.3.d), the temporal perlative (5.3.3.3.e), and finally some language-particular phenomena (5.3.3.3.f).

5.3.3.3.a **General considerations**   It has long been observed and stressed that temporal relationships tend, in practically all languages, to be expressed, more or less metaphorically, in terms of space. To cite Lyons,

The spatialization of time is so obvious and so pervasive a phenomenon in the grammatical and lexical structure of so many of the world's languages that it has been frequently noted.   (Lyons 1977: 718)

Lakoff and Johnson (1980) and Lakoff (1987) have popularized the idea that TIME IS SPACE. This close relationship is even lexically marked in certain languages, like Quechua dialects (including that of Cuzco), in which the same word, *pača* means "time" as well as "space", as in *kay pača*, both "in this space" (or "in this place") and "at this moment" (cf. Boisson 1980: 43).

However, there are important differences between the linguistic expressions of space and time.

Sîbawayhi, the first and most famous ancient Arabo-Persian grammarian, writes in his *Kitâb* (c. 790): "Places are closer to humans and what resembles them. Don't you see that one says Mecca and Oman, thereby assigning proper names like Zayd and 'Amr to places?" (cited by Hamzé 1998: 34). Commenting on this statement, As-Sîrâfî writes in *Ṣarh l-Kitâb* (c. 970) that days, unlike such place names as Mecca, "are not given names that single them out among other days. Friday, Saturday and other days are the names of any day that occupies a certain position in the week" (cited by Hamzé *ibid.*).

Other differences between spatial and temporal complements have to do with their respective degrees of possible insertion in, and solidarity with, the verbal predicate. A single, revealing, fact will be mentioned. In many languages with applicatives (cf. Section 2.4.1.3.c), while various types of spatial complements can be assigned to the verb through applicative morphemes referring to Adp-phrases which express these complements, no temporal complements can be so treated. Such is the case, for example, in Tswana (cf. Creissels 1998: 137). This difference between temporal and other types of circumstantial complements is related to their different behaviour wih respect to word order, as will now appear in the following section.

5.3.3.3.b Relative orders of spatial, temporal, and manner/instrument adverbial complements in sentences

To appreciate the relative importance of spatial vs. temporal adverbial complements for the semantic content of sentences, it is revealing to study the order of their occurrences. A study of word order differences always runs the risk of oversimplifying the facts. In the case of spatial and temporal adverbials, many factors are involved, such as material length, focusing effects, tense (for example, Yurok exhibits a strong tendency to place spatial particles before temporal ones when the latter refer to the past, but after them when they refer to the future; cf. Boisson 1980: 10), obligatory vs. non-obligatory (the spatial complement in *John resides in Paris* cannot be left out). There are also language-particular factors. In English, for instance, precise temporal adverbs tend to precede the verb, while imprecise ones tend to follow it (cf. Jacobson 1964). In many languages, temporal adverbials tend to occur sentence-initially: examples are (cf. Boisson 1980: 11), Bororo (Bororo, Macro-Ge, Brazil), Khmer, Finnish and German, five Mayan languages (Achi, Aguacatec, Quiche (all three in Guatemala), Chol de Tumbalá (Mexico), and Mopan (Belize)), three Mexico Oto-Manguean (two Otomian: Ixtenco and Mezquital, and one Zapotecan: Isthmus Zapotec), three Papua New Guinea (Iduna (Oceanic, Eastern Malayo-Polynesian, Austronesian), Orokaiva (Binanderean, Trans-New Guinea), and Rawa (Finisterre-Huon, Trans-New Guinea)).

But despite all these reserves, there is a strong tendency, in languages, to follow an order which is so defined: if spatial and temporal complements are located on the same side with respect to the verb, spatials tend to be closer to the verb than temporals:

(42)   RELATIVE ORDER OF SPATIAL AND TEMPORAL COMPLEMENTS WITH RESPECT TO THE VERB
   a. V + SPC + TPC
   b. TPC + SPC + V

The word order as shown in (42a) is the preferred order, but not the only possible one, in Achi, Egyptian Arabic, Bekwarra, Birom (both Platoid, Benue-Congo, Niger-Congo, Nigeria), Khmer, Chinantec de Palatla (Chinantecan, Oto-Manguean, Mexico), Chol de Tumbalá, English, Italian, Ixil, Klamath, Kpelle, Mixtec de Jicaltepec and de San Pedro Molinos, Ngbaka, Pangasinan, Quiche, Saramaccan, Trique, Tzotzil, Isthmus and Rincón Zapotec (cf. Boisson 1980: 5).

The word order shown in (42b) is the preferred order in Awa (Eastern Highlands, Trans-New Guinea, Papua New Guinea), Mandarin Chinese, Fasu (Kutubuan, Trans-New Guinea, Papua New Guinea), Gujarati, Hakka, Hixkaryana (Cariban, Brazil), Korean, Koyukon (Athapaskan, Na-Dene, United States), Lamani (Indic, Indo-European, India), Punjabi, Persian, Rawang (Nungish, Tibeto-Burman, Sino-Tibetan, Myanmar), Tibetan, Turkish, Usarufa (Eastern Highlands, Trans-New Guinea, Papua New Guinea), Zuni (United States) (cf. Boisson 1980: 4).

If we extend the study of adverbials word order to mediative (manner) and instrumentive Adp-phrases, we notice that two possible orders are attested:

(43)   RELATIVE ORDER OF SPATIAL, TEMPORAL, AND INSTRUMENTAL-MANNER COMPLEMENTS WITH RESPECT TO THE VERB
   a. V + IC + SPC + TPC
   b. TPC + SPC + IC + V

The word order as given in (43a) is the preferred order in English, Ixil, Mixtec de Jicaltepec and de San Pedro Molinos, Trique, Tzotzil; while the word order in (43b) is the preferred order in Awa, Mandarin Chinese, Gujarati, Lamani, Punjabi, Rawang, Zuni (cf. Masson 1980: 15).

The conclusion is that the association of the instrumentive and mediative semantic functions with the verb tends to be closer than for the spatial and temporal semantic functions, and that spatial semantic functions are closer to the verb than temporal ones. One may speculate that the reason why temporal

complements, the most general framework for the occurrence of events, tend, crosslinguistically, to be expressed before the other ones in sentences might be that time elapses constantly, including during the very moment when speakers speak, and should, consequently, be mentioned first of all. Furthermore, temporal and spatial complements reflect the two parameters defining human activity, and are therefore less intimately linked to the verb than complements expressing other circumstantial modalities, especially manners and tools of activity, hence the different positions with respect to the verb, as shown in the present section.

5.3.3.3.c **The temporal inessive: past or future**   The temporal inessive semantic function refers to a point in time. This point may be past or future. The punctual temporal inessive in the past and in the future are illustrated by (44a) and (44b) respectively:

(44)   Punctual temporal inessive
   a. past
      i. *he came **on** Monday*
      ii. *he left **in** 2006*
      iii. *he arrived **at** four o'clock*

   b. future
      i. *he will come **on** Saturday*
      ii. *he will leave **in** 2009*
      iii. *he will leave **at** six o'clock*

Some language families (e.g. Uralic, North-East Caucasian, Australian) express the temporal inessive semantic function by means of case affixes. Most languages in my corpus express it by Adps, often several Adps as in English illustrated by examples (44), depending on time units (hours, days (and within days, the three main periods: morning, afternoon and evening, being marked by different Adps in some languages, like Irish), nights, weeks, months, years). We have seen in Section 4.1.4 that it often happens, crosslinguistically, that names of time periods which are specified by demonstratives, various determiners, or more generally words referring to past or future dates are bare, that is Adp-less, whereas they take an Adp when they are not associated with a demonstrative, but with articles (in languages that have such words), or when they are on their own: for example French *en février*, but *ce mois-ci.*

It is worth also mentioning another temporal inessive marker, which refers to a precise moment, often coinciding with the moment of speech or writing. An example is English *as of*, a typical illustration of which is given in (45):

(45)   *Klamath is a Plateau Penutian language of south central Oregon, as of*
       this writing nearly extinct (DeLancey 2000: 65).

5.3.3.3.d Temporal deixis in Adps, and the temporal pre- and postessives   In
Section 5.3.3.3.c I examined the temporal inessive semantic function in its
punctual acceptation. But in this same punctual acceptation, there is a
temporal semantic function, also referring to a point, in the past
(preessive) or the future (postessive), which is not neutral in terms of
deixis because it is not considered in itself only, but also with respect to
the temporal situation of ego, the speaker, at the moment of speech. This
applies, in particular, to the temporal preessive and postessive semantic
functions. Temporal deixis can be marked by a variation between different
Adps depending on the time when the event referred to by the governed
term occurred or will occur. Thus, for example, when the governed term
refers to names of days or weeks immediately surrounding the day of the
speaker's deixis, two unrelated languages, Swedish and Tagalog, have in
common that they do not use the same Pr to refer to the past and to
refer to the future: Swedish *i* and *på* refer, respectively, to the past and to the
future, and the same is true of Tagalog *noong* and *sa* (cf. Schachter and
Otanes 1972: 440–2). Maori even distinguishes between three Prs, namely *kei*,
i, and *kei/hei/ko*, to refer, respectively (when the prepositional phrase is the
predicate) to an event happening in the present, the past, and the future.
Maori also associates temporal deixis with temporal Prs, *kei* being used with
governed terms referring to present or future events, while the governed
terms that follow *i* and *hei* refer, respectively, to the past and the future (cf.
Bauer 1993: 309–44).

   In certain languages the blending of Adps with temporal deixis is realized
by the tense of a frozen verb appearing as a constitutive element of an Adp.
The French Pr *il y a*, for instance, which corresponds in most of its uses to the
English Po *ago*, contains a third person singular present form of *avoir* "have",
namely *a* (cf. Section 3.4.4.2), which can be negated, another contribution to
the deictic meaning. Consider (46):

(46)   a.   *elle l'a quitté **il y a** un mois*

       a′. *she left him one month **ago***

       b.   *elle l'a quitté **il n'y a pas** un mois*

       b′. *she left him less than one month **ago***

       c.   *il fera ce travail **dans** quatre mois*

       c′. *he will do this job **(with)in** four months*

In (46a) *il y a* marks a temporal complement which refers to a past date with respect to ego's deictic time, and *ago* does the same job in (46a′), the translation of (46a). Example (46b) contains the French negative temporal preessive *il n'y a pas* and (46b′) is its translation. Sentence (46c) and its English translation (46c′) show the use of the French temporal postessive Pr *dans*, and its English equivalents *in* or *within*. We note that in French and English, as in many languages, the markers of this meaning are the polysemic Adps which also mark the temporal (and spatial) inessive semantic function.

Reference may also be made to a point, in the past or future, that does not coincide with ego's temporal deixis, but with a past or future point which is at a distance from ego's deixis. Consider (47):

(47)   a.   *quand nous sommes arrivés, **il y avait** une heure **qu'il** était mort*

      a′.   i.   *when we arrived, he had died one hour **earlier***
           ii.   *when we arrived, he had died one hour **before***

      b.   *en mai 1945, **il y aura** bientôt 65 ans, les dernières troupes allemandes se rendaient*

      b′.   *in May 1945, it will soon be 65 years **ago**, the last German troops surrendered*

      c.   *il est devenu célèbre en 2005. Un an **plus tôt/avant**, presque personne ne le connaissait*

      c′.   *he became famous in 2005. One year **earlier/before**, almost nobody knew him*

      d.   *il viendra lundi prochain, mais deux jours **plus tard**, il devra partir*

      d′.   *he will come next Monday, but two days **later**, he will have to leave*

Thus, there is a deictic vs. non-deictic meaning of temporal pre- and postessives. In (47a) the Adp-phrase *il y avait une heure* is associated with *qu'*, a focalizing morpheme, usually in the discontinuous form *c'est* (*c'était, ce sera*, etc.) . . . *que*, and the Adp *il y a* is in the imperfect, referring to ego's deixis, just like *earlier* and *before* in (47a′.i–ii), the English translations of (47a). Similarly, tense-inflected *il y aura* in (47b) and uninflected *ago* in its translation (47b′) mark a preessive, but, without contradiction, a future one, as required by ego's deixis. Note that even though the *a* in *il y a* can be inflected for past and future, this verb-like tense-inflection of French *il y a* has nothing any more to do with *avoir* "to have" in semantic terms; note also that this phenomenon should not be confused with the phenomenon of inflected Adps studied in Section 3.4.6.1, which concerns Adps whose form changes depending on the person of the governed term

when it is a pronoun; unlike these Adps, *il y a* exhibits tense-, not person-inflection.

As opposed to (47a–a′, b–b′), in (47c–c′) and (47d–d′) we have punctual temporal complements, respectively a preessive and a postessive, with a non-deictic value, since the times referred to in these sentences do not depend on ego's temporal deixis. *Earlier* and *later*, like *plus tôt* and *plus tard*, are comparative adverbs which behave like Adps.

Deictic, as well as non-deictic, temporal inessives with a punctual meaning are much more frequently expressed by Adps than by case affixes. They are found, for instance, in Russian, Indonesian, or Maltese. In modern, and especially newspaper, style in western languages, it often happens that the expression associated with the Adp, and thus functioning as its governed term, is not expressly temporal, or is so only by metaphor, since it refers, in fact, to events that have occurred in a certain time lag, expressed or not in the same sentence. An example is (48):

(48)   FRENCH
        *deux ans, et huit cent mille morts **plus tard**, les négociations commencèrent*
        'two years, and eight hundred thousand people killed **later**, negotiations started'

Finally, some temporal Adps have a verbal background, in particular a participial one (cf. Section 3.4.4.2). This is characteristic of Adps referring to a moment, in the present of speech, at which something is to come and is, therefore, expected, hence its dynamic expression by a verb-derived Adp. English *pending* is an illustration:

(49)   ***pending** further news, I will keep to my present project*

5.3.3.3.e **The temporal perlative: bounded vs. unbounded**   The temporal perlative complement may be bounded or unbounded, depending on whether the past, present, or future event whose duration is considered is viewed or not as having a beginning and an end. This is shown by example (50):

(50)   a. *they built the house/ generally build houses /will build the house **in one year***

        b. *they remained at work **for five weeks***

        c. *he has been working **for two hours***

While (50b) and (50c) express events whose time boundary is not explicitly taken into account, (50a) refers to an event which is presented as beginning, then occupying a certain duration, then reaching a final point in time. Some

authors, such as Erschler (2007), use the term *telic* for what is called here a bounded temporal perlative; they mean thereby that in situations referred to here, a change of state occurs when an inherent culmination point is reached, as opposed to atelic situations, in which no such point exists. Erschler also speaks of *in*-adverbials and *for*-adverbials respectively.

Interestingly enough, the unbounded temporal perlative, which, in many languages, is expressed either by bare noun-phrases or by core-case-marked noun-phrases, can also be expressed in the same way as in examples (50b–c), that is by a purposive Adp like English *for*. This can be tentatively explained by the semantic relationship between duration and purposed behaviour, although duration does not imply semantic integration as much as purposive, which refers to the goal with which the process marked by the predicate is performed (cf. example (22)). Interestingly too, the bounded temporal perlative, which, unlike the unbounded temporal perlative, is never expressed by core cases nor by unmarked bare noun-phrases, is expressed, in many languages, just like the temporal postessive semantic function illustrated above in examples (46c–c'), by the markers of the spatial inessive semantic function, that is those meaning "in". What underlies this use is probably a spatial metaphor transferring in temporal terms the notion of the internal boundaries of an object. However, other Adps are also attested in this semantic function, for example a spatial-temporal postessive Complex Adp, like Archi *'on* (governing the dative, itself suffixed on an oblique marker as in other languages). This is illustrated in (51):

(51)   Aʀᴄʜɪ (Lezgic, Daghestanian, Nakh-Daghestanian, Russia) (Erschler 2007)
       Rasul welršlu   X'attaš   Šallaq   q'lwet'u
       Rasul ran.3SG.PST from.Xittab to.Šallaq two
       sa'at-l-is   'on
       hour-OBL-DAT behind
       'Rasul ran from Xittab to Šallaq in two hours'

5.3.3.3.f. **Some language-particular phenomena**   As said earlier, the present book is not meant to be an exhaustive one, granting this is at all possible on such a topic. I will only select here some revealing cases. They concern, successively, spatial vs. temporal preessives, spatial vs. temporal abessives, spatial vs. temporal terminatives, and the formal and semantic structures of certain preessive, postessive, and perlative Adps:

• Spatial vs. temporal preessives: while it is true that, as stressed in Section 5.3.3.3.a, there is a widespread crosslinguistic expression of time by means of space in most adpositional systems, individual languages exhibit different

lines of evolution. Thus, in earlier French *avant* had both a spatial and a temporal preessive meaning. At the beginning of the nineteenth century the spatial Pr *devant*, which had itself lost the temporal preessive meaning it had in classical French (e.g. Bossuet, *Discours sur l'histoire universelle*, 1679, I, 3: *un peu devant sa mort* "shortly before his death"), was becoming more and more frequent in the meaning of the spatial preessive. Thus, *avant* became more specialized in a temporal preessive meaning, but without losing its spatial uses completely. The same can be said of English *before*, which, despite the advent of spatial *in front of*, did not totally lose its spatial uses, as shown by such examples as *I have the poem before me, he said it before me, they appeared before the judges*. These examples show that things are less simple than one could believe when considering the general trend towards the exclusive temporal uses of Adps which are, originally, both spatial and temporal. They also confirm an important feature of Adps as belonging to a semantic paradigm within every language: the uses and meanings of an Adp do not only result from an association of their base meaning(s) with the requirement of the sentence context, but also from the paradigmatic context, that is the reciprocal pressures of Adps within a given semantic domain or subdomain.

- Spatial vs. temporal abessives: the spatial abessive semantic function refers to the situation of a person or a thing located at a place which is the starting point of a process. Such a point is also the first step of an evolution along time. Consider (52):

(52) FRENCH (Pottier 1962: 209–13)
  a. *dès la porte, il faudra marcher sur la pointe des pieds*
     'as soon as (you reach) the door, you will have to walk on the tips of your toes'
  b. *on devine, dès le premier chapitre, la fin du livre*
     'from the first chapter, one can guess the end of the book'
  c. i. *il travaille depuis midi*
        'he has been working since midday'
     ii. *il a travaillé à partir de midi*
        'he has been working from midday'
  d. *il travaillera à partir de midi*
     'he will be working from midday'

As shown by (52a–b), the French Pr *dès*, which has no exact unanalysable equivalent in English, refers to a position, in space or time, immediately contiguous to a starting point, with the implication that events are to happen

authors, such as Erschler (2007), use the term *telic* for what is called here a bounded temporal perlative; they mean thereby that in situations referred to here, a change of state occurs when an inherent culmination point is reached, as opposed to atelic situations, in which no such point exists. Erschler also speaks of *in*-adverbials and *for*-adverbials respectively.

Interestingly enough, the unbounded temporal perlative, which, in many languages, is expressed either by bare noun-phrases or by core-case-marked noun-phrases, can also be expressed in the same way as in examples (50b–c), that is by a purposive Adp like English *for*. This can be tentatively explained by the semantic relationship between duration and purposed behaviour, although duration does not imply semantic integration as much as purposive, which refers to the goal with which the process marked by the predicate is performed (cf. example (22)). Interestingly too, the bounded temporal perlative, which, unlike the unbounded temporal perlative, is never expressed by core cases nor by unmarked bare noun-phrases, is expressed, in many languages, just like the temporal postessive semantic function illustrated above in examples (46c–c'), by the markers of the spatial inessive semantic function, that is those meaning "in". What underlies this use is probably a spatial metaphor transferring in temporal terms the notion of the internal boundaries of an object. However, other Adps are also attested in this semantic function, for example a spatial-temporal postessive Complex Adp, like Archi *'on* (governing the dative, itself suffixed on an oblique marker as in other languages). This is illustrated in (51):

(51)   ARCHI (Lezgic, Daghestanian, Nakh-Daghestanian, Russia) (Erschler 2007)
Rasul welršlu   X'attaš   Šallaq   q'lwet'u
Rasul ran.3SG.PST from.Xittab to.Šallaq two
sa'at-l-is   'on
hour-OBL-DAT behind
'Rasul ran from Xittab to Šallaq in two hours'

5.3.3.3.f. **Some language-particular phenomena**   As said earlier, the present book is not meant to be an exhaustive one, granting this is at all possible on such a topic. I will only select here some revealing cases. They concern, successively, spatial vs. temporal preessives, spatial vs. temporal abessives, spatial vs. temporal terminatives, and the formal and semantic structures of certain preessive, postessive, and perlative Adps:

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- Spatial vs. temporal abessives: the spatial abessive semantic function refers to the situation of a person or a thing located at a place which is the starting point of a process. Such a point is also the first step of an evolution along time. Consider (52):

(52) FRENCH (Pottier 1962: 209–13)

    a. *dès la porte, il faudra marcher sur la pointe des pieds*
       'as soon as (you reach) the door, you will have to walk on the tips of your toes'

    b. *on devine, dès le premier chapitre, la fin du livre*
       'from the first chapter, one can guess the end of the book'

    c. i. *il travaille depuis midi*
         'he has been working since midday'

      ii. *il a travaillé à partir de midi*
         'he has been working from midday'

    d. *il travaillera à partir de midi*
       'he will be working from midday'

As shown by (52a–b), the French Pr *dès*, which has no exact unanalysable equivalent in English, refers to a position, in space or time, immediately contiguous to a starting point, with the implication that events are to happen

at a distance from this starting point. Examples (52c.i–d) show that with respect to the temporal deixis of the speaker, a moment of time from which something happens can be viewed as anterior (*depuis*) or posterior (*à partir de*), *à partir de* also being used when the context is non-deictic, as in (52c.ii).

- Spatial vs. temporal terminatives: the French Pr *jusqu'à* provides an example of the often versatile behaviour of terminative Adps:

(53)   FRENCH

    a. *il ira jusqu'à Paris*
       'he will go as far as Paris'

    b. *il a attendu jusqu'à midi*
       'he has been waiting up to midday'

    c. *jusqu'à ses meilleurs amis qui ne lui parlent plus*
       'even his best friends do not talk to him any longer'

With the same French Pr *jusqu'à*, (53a) and (53b) are examples of the spatial and temporal terminative respectively, while this word functions in (53c) as an adverb whose syntactic scope is a noun, and which means "even". This meaning is in keeping with the terminative content of *jusqu'à*: a spatial or temporal limit can also be seen as a notional limit.

- The formal and semantic structures of certain temporal preessive, postessive and perlative Adps: I will only study here one case, which seems especially revealing. In Indonesian *sebelum* "before", *sesudah/setelah/sehabis* "after", *selama* and *sepanjang*, both meaning "during", are among the Prs which contain the prefix *se-*. This prefix is followed by elements which here appear as part and parcel of a compound word; but these elements also exist as free words themselves: *belum* is a negation meaning "not yet", *sudah* and *habis* are originally state verbs meaning "finished", "carried out", *telah* is a mark of the perfective aspect, and *lama* and *panjang* mean "longlasting". Thus, Indonesian has made up temporal preessive, postessive, and perlative Prs whose structure is semantically motivated: granting that *se-* has the general meaning "in situations where", then "before" is expressed as "in situations where there is not yet (X)", "after" as "in situations where (X) is finished, over, carried out, and belongs to the past", and "during" as "in situations where (X) is longlasting".

5.3.3.4 *The non spatio-temporal, or notional, domain*   I will first present general considerations (5.3.3.4.a), then the comitative semantic function (5.3.3.4.b), the relationship between the comitative and the instrumentive semantic functions (5.3.3.4.c), the comparative semantic function (5.3.3.4.d),

the essive and translative semantic functions (5.3.3.4.e), and finally some uncommon semantic functions (5.3.3.4.f).

5.3.3.4.a **General considerations**   As shown in Table 5.1, the non spatio-temporal, or notional, domain contains the following semantic functions:

- proprietive
- exclusive
- exceptive
- comitative
- instrumentive
- mediative
- motivative
- concessive
- comparative
- essive, translative
- purposive
- adversative
- pertentive
- roborative
- additive
- substitutive
- adnumerative
- hypothetical

I have ordered these semantic functions in Table 5.1 according to semantic relationships between items in subdomains:

- *Proprietive, exclusive, exceptive,* and *comitative* immediately follow one another because they belong to the semantic subdomain "being with/ without". As for "being with", when one is somewhere with someone or something, the semantic function is *comitative,* while when one possesses something or someone, the semantic function is *proprietive.* As for the opposite meanings, one corresponds to the semantic function *exceptive,* and the second to the semantic function *exclusive.* The exceptive function is sometimes expressly marked as the semantic opposite of the comitative. This is the case of English *with-out.* Some languages have a rich array of exceptive markers. Such is the case of Kanuri (as we saw in Section 3.1.1), even though this language is in fact very poor in Adps! The terms *exceptive* and *exclusive* can also cover special forms found in certain languages:

  – the written Chukchi form called *anticomitative* by Kämpfe and Volodin (1995) and *privative* by Weinstein (to appear), who mentions the Chukchi

privative case-circumfix *a-...-ka* "without" (cf. my comment on example (24) in Chapter 2),
– the Kâte form called *caritive* (from Latin *careo* "to lack") by Pilhofer (1933: 48), who mentions two distinct caritive markers in this language, namely the Pos *tâmilic* and *mâc*.

- *Comitative* and *instrumentive* immediately follow each other in Table 5.1 because the syncretism vs. non-syncretism of the forms that mark them in different languages is an important issue, as will be shown in Section 5.3.3.4.c.
- *Mediative* and *motivative* follow *instrumentive* because the notions to which they correspond are semantically close to, or not totally distinct from, that of instrument; the *concessive* follows the *motivative* for the same reason.
- The *comparative* subdomain is not without semantic ties with the *comitative*, which, however, it does not follow immediately in Table 5.1, due to the interpolation of *instrumentive* (in relationship with *comitative*, as stated above) and the names of semantic functions akin to it. Some of the markers of the *essive* or *translative* semantic function, which often have both of these senses, hence their presence on the same line in Table 5.1, have the same form as comparative markers. This is the reason why this function appears just after *comparative* in Table 5.1.
- There is a semantic relationship, if one of opposition, between *purposive* and *adversative*, hence their position in Table 5.1.
- The following semantic functions are ordered randomly in the table, though it can be argued that:

  – there is a relationship, admittedly an inverse one, between what is said in addition to something (*additive*) and what is said instead of it (*substitutive*),
  – speaking according to, or depending on, certain considerations (*roborative*) is not far from evaluating something in proportion to something else (*adnumerative*), and more generally speaking about a subject (*pertentive*). The pertentive semantic function itself involves the topic referred to as well as the participants' viewpoint, which can be explained by the fact that when a participant refers to a topic, this reference itself implies an interpretation given by the participant.

It is important to add that non-spatial meanings are often close to spatial ones. Table 5.1 shows three examples of this. First, the secutive function, which is spatial, is semantically related to the roborative function, which is notional. Thus, for instance, the same participle-derived English Pr *following* appears as an illustration of both these semantic functions. Second,

notional uses of Adps are often, like temporal ones, metaphorically derived from spatial uses. The adessive semantic function, for instance, has, in addition to its spatial meaning, two metaphorical meanings related to the idea of "being near someone or something": one of them, which illustrates, at least in English, the semantic relationship between adessive and abessive, is "foreign to", as in *this is beside the question/the point/the mark* or *to be beside oneself*; the other one is "compared with", as shown by such a sentence as *nobody can come anywhere near her*. Finally, the additive and adessive semantic functions are related, and this can be reflected in the means of expression of each of them: one of the meanings of English *beside* along with "next to" (or "outside of"), is the same as that of *besides*, which is additive, as shown by example (54):

(54)   a.   *there is no one to set **beside** him*
       b.   *I want nothing **beside(s)** this*

5.3.3.4.b **The comitative semantic function** The comitative semantic function is often closely related with a function which, unlike the one fulfilled by Adps, links together two phrases having the same function, namely coordination. I showed in Section 2.4.2.6 that certain phonological, morphological, syntactic, and semantic criteria can be used to distinguish Adps from conjunctions of coordination. However, as Section 2.4.2.6 has also shown, many languages are diachronically unstable in this respect. And the relatively lower grade of grammaticalization of comitative markers is further evidenced by their behaviour towards articles (Section 3.3.3.3).

The form of the comitative marker is interesting to examine when its source is clearly traceable. To take examples from the Finnic sub-family, Pos like Finnish *kanssa* and archaic Estonian *kaas* (which comes, itself, from *kanssa* and has become a case suffix *-ga* in contemporary Estonian), both meaning "with", go back to a noun meaning "people", and Sami *guin* derives from a noun meaning "comrade", still extant in the form *guoibmi* (same meaning).

The very notion of comitative implies a human referent and should, as such, exclude inanimate referents from comitative marking. But some languages have two different comitatives, whose distinctive use depends on whether the governed term of the comitative marker is animate or inanimate. Such seems to be the situation in Krongo, illustrated by examples (55a–b). In other languages the situation is more complex. Thus, To'aba'ita has a preposition *bii/bia* which is comitative, as shown by example (56a), in which both participants are to perform the activity of going. But in (56b) we see another preposition, *faafi*, whose use refers to a situation in which only the persons referred to perform the activity of going. There is some correlation with

animacy: inanimate entities do not generally perform events, and a human is not usually transported by other humans, being held/carried by them, a semantic function called *confective* by Lichtenberk (1991: 44). But this is not a grammatical rule. In To'aba'ita (Lichtenberk, p.c.) there are examples of *bia* with an inanimate complement, and examples of *faafi* with animate complements.

(55)   KRONGO (Kadugli, Sudan) (Stolz 1996*a*: 11)

    a. *nk-áa   t-éenì   kùfàakúng kí còorì   yá   ntànéerá*
       3PL-be INF-leave wild.dog   in house COM house.dog
       'they leave the wild dog in the house with the house dog'

    b. *m-àdìyà   kí dì   á   sárí*
       3.SG.F.PFT-come in home COM basket
       'she (came home with=) brought home the basket'

(56)   TO'ABA'ITA (Oceanic, Eastern Malayo-Polynesian, Austronesian, Solomon Islands) (Lichtenberk 1991: 44–5)

    a. *tei   na   'oki   lae bii-a?*
       who? FOC 2SG.IPFT go COM-3SG
       'who will you go with?'

    b. *keka   oli   na'a faafi-a   roo subi   baa   ki*
       3PL.SEQU return PFT COM-3PL two war.club DEM PL
       'they went back with the two war clubs'

Besides the animate–inanimate distinction, two others are found for comitative markers in certain languages: Tairora is an example of number distinction, and Auyana illustrates voice distinction, as shown, respectively, by (57) and (58):

(57)   TAIRORA (Eastern Highlands, Trans-New Guinea) (Vincent 1973: 541)

    a. *Ori nti   ani*
       Ori COM.SG come.1SG
       'I came with Ori'

    b. *eqara   hampata   uri*
       white.man COM.SG/PL arrive.1SG
       'I arrived with a white man'

(58)   AUYANA (Eastern Highlands, Trans-New Guinea) (McKaughan and Marks 1973: 186)

    a. *poi kwada   kwaasin kwet-i*
       pig COM.ACT man   come-3SG
       'the pig comes with the man'

b. *poi yen*   *kwaasin kwet-i*
   pig COM.PASS man   come-3SG
   'the pig is brought by the man'

The difference between the two Tairora Pos in (57) is that *nti* can only have a singular governed term, whereas *hampata* can govern either a singular or a plural term. The situation is different in the following examples: the active vs. passive interpretation of (58) is not linked with any active vs. passive morphology of the verb or with any agent vs. patient marking of the participants, but only with the inherent meanings of the two distinct Pos *kwada* and *yen*. Thus, it is the relationship between the two participants of a comitative situation which is focused here, in an interesting way, since in Auyana the distinction between two degrees of control, instead of being expressed, as is usual, by the syntactic structure such as the one reflected in the relationship between the predicate and the participants, results from the very meaning of the two distinct comitative Adps.

A further interesting characteristic of comitative Adps is that they can be negated, to yield a marker of the exclusive semantic function. Seiler writes about German: "there is a property, hardly ever noticed in the grammatical literature, that distinguishes *mit* from all other prepositions: *mit* can be negated and shows a proper negative form: *ohne* 'without'. " (1974: 220).

In fact, other Adps also show negative forms, and, contrary to the *mit~ohne* couple, materially explicit ones. Such is the case of the English *with/without* pair, which I have mentioned along with other positive vs. negative adpositional pairs in Section 3.4.6.7. As far as the comitative vs. exclusive couple is concerned, "without" is also expressed as "negation + with" or "with + negation" in some languages, for example Arabian dialects (*b-la X* "with-no X"), Sumerian, Hixkaryana, Kalaalisut, Lezgian (cf. Stolz 1996*a*: 28–30).

However, most languages have two distinct forms, one for "with", another for "without". I will not insist on case-affixes, although they play an important role here: Hungarian, for example, has a Po, *nélkül*, for "without", but a case suffix, *-val/-vel*, for "with", and even another comitative case-suffix, *-stul/-stül*, reserved for family members or close companions. As far as Adps are concerned, one can mention Albanian *me/pa*, Greek *me/xōrís~díxōs*, Icelandic *med/án*, Catalan *amb/sense*, Guarani *ndive/ỹre*, Warao (Chibcha, Venezuela) *aisiko/nokabuka*, and Nobiin (Eastern Sudanic, Sudan) *dàn/kìnyín*.

Other meaning-triggered variations of comitative markers, although uncommon, deserve to be mentioned here. The Icelandic Pr *med* governs the accusative or the dative depending on the degree of affectedness of the

accompanying actant. The Guarani comitative Po takes two distinct forms depending on the degree of animacy of the referent of its complement: animate *ndive/*inanimate *reheve*, and Evenki (=Lamut) (Tungusic, Altaic, Russia) has four comitative Pos reflecting as many degrees of animacy. Korean has three comitative Pos whose use is submitted to the degree of politeness. The effect of the politeness criterion is also observed, in Korean, when it comes to the adpositional mark of the agent and the beneficiary. In ordinary situations, the agent is marked by *i* after a consonant and *ga* after a vowel, but when the person corresponding to the subject is honoured, the mark is *kkésɔ*. In the same situation, to mark the dative, Korean, instead of plain *égé*, uses polite *kké*. In Saliba (Oceanic, Eastern Malayo-Polynesian, Papua New Guinea), the distinction between comitative markers is based on the difference between alienable and inalienable, and in Luiseño (Takic, Uto-Aztecan, United States), it is based on the difference between static and non-static.

5.3.3.4.c On the relationship between the comitative and the instrumentive semantic functions   It is a widespread belief that the comitative and instrumentive semantic functions are marked syncretically in most languages, that is to say that most languages use the same Adp or case affix to mark the two. Lakoff and Johnson, in particular, write:

With few exceptions, the following principle holds in all languages of the world: The word or grammatical device that indicates ACCOMPANIMENT also indicates INSTRUMENTALITY.

[. . .]. The reason that this is not arbitrary is that our conceptual system is structured by the metaphor AN INSTRUMENT IS A COMPANION. [. . . Since] the experiences on which the metaphor AN INSTRUMENT IS A COMPANION are based are likely to be universal, it is natural that this grammatical principle holds in most languages.   (Lakoff and Johnson 1980: 135)

This view is taken over by several authors, among whom are Heine *et al.* (1991). In actual fact, however, it does not stand serious investigation. Stolz (1996*b*: 127) shows that out of 323 languages, only 79 (24.46 per cent) are "coherent" (i.e. exhibit this syncretism), while 209 (64.70 per cent) are incoherent (i.e. have distinct markers for the instrumentive and comitative semantic functions), and 35 (10.84 per cent) are mixed (i.e. have a syncretistic marking of comitative and instrumentive, but also an independent marker reserved for one of the two). In other words, only "some instruments are really good companions" (Stolz's formula). Admittedly, in Europe 49.02 per cent languages in Stolz's sample are coherent, 31.38 per cent incoherent and 19.60 per cent mixed. But as soon as we examine languages from other

continents, the picture changes: as noted by Stolz and based on his sample (1996*b*: 128–30), in Africa, the Americas, Asia, and Oceania respectively, 58.46 per cent, 69.24 per cent, 71.2 per cent, and 85.72 per cent are incoherent, while 30.77 per cent, 20.51 per cent, 18.2 per cent, and 9.52 per cent are coherent, and 10.77 per cent, 10.25 per cent, 10.6 per cent, and 4.76 per cent are mixed. The majority of the Adps in this sample are comitatives, which is not surprising, when it is known that the instrumentive semantic function can be expressed by other means than Adps, including serial verbs, one of the major grammaticalization channels for expressions of instrumentality (cf. Hagège 1982: 58), although verbs meaning "to use" do not always yield instrument markers (cf. Schlesinger 1979).

It results from the foregoing that Lakoff and Johnson's approach cited above is strongly west-Eurocentric, since in Europe as a whole the coherent type of language is far from being the exclusive one. Given the world-wide extension of the incoherent type, it appears that a thorough comparative study of the way the instrumentive and comitative semantic functions are marked in languages results in showing that in this respect as in many others, west-European languages are fairly exotic.

Among other, less overt, facts, a few, admittedly, seem to point to a syncretistic treatment of the comitative and instrumentive semantic functions. Thus, whatever the form taken by the morpheme which marks the exclusive semantic function, this morpheme, in most languages, does not negate only the comitative, but also the instrumentive. An example of this syncretism is Souletin Basque, where -*(e)z* marks the instrumentive, *arekin* the comitative, but "not with(COM)" and "not with(INSTR)" are both marked by the same form, namely the exclusive *gabe*.

Such facts, however, are isolated. Most other covert facts point to a distinction between comitative and instrumental markers. I will mention four of them. First, as shown by example (76a–b) in Section 2.4.1.1, in certain languages the syncretic marker, when used as a preverb, is not treated in the same way when it has a comitative and when it has an instrumentive meaning. Second, in languages that use comitative or instrumentive applicatives along with Adps or case-affixes having these meanings, comitatives and instrumentives are not treated in the same way: the comitative meaning tends to be encoded as an applicative affix but this does not apply to the instrumentive meaning, as shown for instance, by Sumerian and Evenki (cf. Stolz 1996*a*: 43). The third fact is that in languages distinguishing two comitative markers, the instrumentive either takes the form of one of them and thus remains distinct from the other, or has a form distinct from both of them: among languages just cited above, the first of these cases is illustrated by Krongo, the second by

To'aba'ita and Auyana. Finally, in incorporating languages which have the same Adp for both meanings, instrumentive complements may be incorporated, whereas comitative ones may not. An example is Yucatec:

(59)   YUCATEC (Mayan, Mexico) (Stolz 1996*a*: 20)

    a. *ts'ook in   xet-ik   **yetel**   borrador hum p'éel hu'n*
       PFT   1SG.S tear-TRZ INSTR rubber   one CL   paper
       'I tore a piece of paper with a rubber'

    a'. *ts'ook in   xet-borrador-tik   hum p'éel hu'n*
       PFT   1SG.S tear-rubber-TRZ   one CL   paper
       'I tore a piece of paper with a rubber'

    b. *ts'ook in   xet-ik   **yetel**   Pedro hum p'éel hu'n*
       PFT   1SG.S tear-TRZ COM Pedro one CL   paper
       'I tore a piece of paper with Pedro'

    b'. **ts'ook in   xet-Pedro-tik   hum p'éel hu'n*
       PFT   1SG.S tear-Pedro-TRZ one CL   paper

Example (59b'), if at all possible, would have the same meaning as (59b). This difference between the comitative and instrumentive complements marked by the same Pr is not only a phenomenon revealed by two different behaviours with respect to incorporation. In pre-colonial times old Yucatec had, in fact, two distinct Adps *etel*, comitative, and *ti*, instrumentive (cf. Smailus 1989: 150–3).

Despite the widespread distinction, in languages of the world, between comitative and instrumentive, an important phenomenon, namely contact, especially when it is extended over long periods, can result in one form of syncretism. I have already noted above that the Basque exclusive marker serves both as a negative instrumentive and a negative comitative. But in addition to this purely internal feature, the external pressure of Romance languages, French, Spanish, and Gascon, with which Basque has long been in contact, and in which the same marker, for instance French *avec*, marks both the comitative and the instrumentive, has produced a tendency in Basque to use the comitative as an instrumentive in addition to its comitative value (cf. Heine and Kuteva 2006: 246–7).

The Romance languages with which Basque is in contact are only some of those that constitute a vast set of European languages that have many common properties, triggered by the duration of contact throughout Europe. One of these common properties, relevant to the topic of this section, is the cyclic evolution, in European languages, from the coherent type (undistinguished comitative/instrumentive, as said above) to the mixed type, then from the

latter to the incoherent type, which itself produces a coherent type again, by a strong tendency, especially in Slavic, Baltic, Finnic languages, and Basque, to extend the use of comitative markers to mark the instrumentive function (cf. Heine and Kuteva 2006: 185–203). Exceptions are few, one of them being Finnish comitative vs. instrumentive case-suffixes, which are different (instrumental *-llä* vs. comitative *-ine* (a literary form, while the modern form is the Po *kanssa*)), in striking opposition with closely related Estonian, which has the same form: comitative and instrumental *-ga*.

It thus appears, as stressed by Stolz (2001), that the extension of comitative markers to instrumentive marking in European languages is both a contact-induced and a unidirectional process.

5.3.3.4.d The comparative semantic function   Table 5.1 mentions two kinds of comparatives. One, expressing equality (generally marked by *as* or *like* in English), and another, expressing inequality (generally marked by *than* in English). I will study these here.

The comparative of equality is of two kinds, illustrated by examples (60) and (61):

(60)　a.　*Jeff is as clever as Jane*

　　　b.　i.　*my opinion is the same as yours*
　　　　　ii.　*I have the same opinion as yours*

(61)　*they play like children*

The English Pr *as* (homophonous with the adverb meaning "as much" which appears in (60a) as a marker of the degree to which Jeff is clever) governs the terms *Jane* in (60a) and *yours* in (60b.i–ii). The Pr *like* in (61) governs the term *children*. Given that in these sentences *Jane*, *yours*, and *children* express the standard with which the arguments expressed by *Jeff*, *my opinion*, and *they* are compared, the semantic function of the Prs *as* and *like* is to mark the standard. Consequently, these two Prs will be called *standard markers*. The type of comparison illustrated by (60a) refers to the sameness of the degrees of two qualities—the cleverness of Jeff and that of Jane—but such structures can also refer to the sameness of the degrees of two activities; the type of comparison illustrated by (60b.i–ii) refers to the very sameness of *my opinion* and *yours*; the syntactic centre with respect to which *as yours* functions as an adverbial complement is the predicative verb phrase *is the same* in (60.b.i) and the noun-phrase *the same opinion* in (60.b.ii). Therefore, we will say that the standard marker *as* in *as Jane* and *as yours*, since it refers to an equality between two degrees of a quality (physical or moral attribute, colour, manner, etc.), or of a static or dynamic situation, expresses an *equative* comparative.

Sentences like (61), on the other hand, do not refer to degrees, but merely to the more or less similar nature of two situations, processes or activities, which, in the case of (61), the participants expressed by *they* are said to carry out in the same way as children. Therefore, the standard marker *like* in (61) expresses an *assimilative* comparative. Heine and Kuteva (2006: 236), following a common terminology, speak of *similative*. My reason for preferring *assimilative* is that this term says more accurately what constitutes the meaning of such Adps as *like* in (61): this type of comparative sentence expresses a general, rather than a total, resemblance, and the Latin adjective *similis*, from which the Latinate term *similative* is derived, means "(the) same", while *assimilis* means " roughly the same".

Degree markers, illustrated by the adverb in (60a) (the first *as* in this sentence), do not appear in equative sentences such as (60b), nor in assimilative structures; in addition, they are absent, or optional, in a number of languages, including European languages (cf. Heine and Kuteva 2006: 237). As a consequence, only standard markers are necessary, at least in most languages. Interestingly, they are historically derived, in certain languages like the majority of those spoken in Europe, from manner interrogatives, which, in these languages, are often also the sources of relative clause markers (cf. Stassen 1985; Heine and Kuteva 2006: 239), the link between the latter and standard markers being evidenced by their identity in some languages, particularly Danish, Norwegian, and Swedish, all of which use *som* in these functions.

Other languages use the same word, both as manner interrogative and as equative and assimilative standard marker, for instance colloquial Maghrebi Arabic *ki:f*. But the equative and assimilative standard marker can also keep the very shape of a noun whose meaning is, precisely, "resemblance", as is observed in classical Arabic *mithl-a*, an historical accusative whose original meaning is "according to the resemblance of", and which takes possessive suffixes expressing the comparative Adps' governed term, as in *mithla-hu* "like him", *mithla-hunna* "like them (women)". In Mediaeval Arabic, however, this word is not yet used as an Adp, and there is no direct expression of the equative comparative, unless one uses a structure in which *mithl* is a (feminine) noun and the property which is the comparison focus is another noun, in the indefinite accusative, as in (62):

(62)   MEDIAEVAL CLASSICAL ARABIC (Abû l-Farağ al-Isfahânî 1345/1927: II, 130)
         lam   *tura*   **mithlu-***hu*   *husn-an*
         PFT.NEG see.3SG.F.PASS resemblance-3SG.M.POSS beauty-INDEF.ACC
         'no such handsome man as him was ever seen'

The literal meaning of (62) is "his resemblance with respect to beauty was never seen". It shows that expressing the comparative of equality is no easy task for languages to perform, and that outside Europe, one does not always find straightforward expressions for that.

This is confirmed by other non-European languages. In another Semitic language, Israeli Hebrew, the equative comparative is normally expressed by an optional word *kolkax* (adverb functioning as degree marker) + *k(ə)mo*, a Pr which, when the governed term is a pronoun, forms with personal suffixes irregular combinations, such as *k(ə)mo-ni* "as me", *k(ə)mo-t-ex* "as you (feminine)", *kamo-xem* "as you (plural)", etc. The Israeli Hebrew assimilative standard marker is also *k(ə)mo*, or a shortened form *kə* which blends with the definite article *ha*, yielding *ka*, a form found in front of nouns used as governed terms, for example in *ka more* "like the teacher", and also in front of governed terms which are nominalized passive participles. With these terms it yields widely used adverbial phrases, such as *kamuvan* "as is (understood=) understandable", *kazaxur* "as one remembers", *kayadua'* "as is known".

The expression of comparison in modern Mandarin Chinese is also complex. In this language the equative Adp has the same form as the verb "to have", *yŏu*, and the quality-verb ("adjective") which expresses the focus of comparison is optionally preceded by *nama* "as much", as in (63a). Mandarin Chinese also has a *non-equative* Pr meaning "not so (X) as (Y)", and which has the same form as the negative verb *méiyŏu* "no to have", as shown by (63b):

(63)　Mandarin Chinese (Hagège 1975: 103)
　　　a. *dìdì*　　　　　*yŏu wŏ (nama) gāo le*
　　　　　younger.brother as　1SG　　　　tall　NSAM
　　　　　'my younger brother is as tall as me'

　　　b. *shéi yě méiyŏu nĭ ài liūbīng*
　　　　　who? also not.as　2SG enjoy skating
　　　　　'no one likes skating as much as you'

This grammaticalization of a verb "to have" into a Pr functioning as an equative standard marker is a rare phenomenon. One may hypothesize that in this structure, *yŏu*, which also means "there is" in Mandarin Chinese, originally functions as a topic marker, and therefore topicalizes the standard with respect to which an equative or non-equative comparison is made. Chinese has no specific assimilative Adp outside *rú* and *rútóng* "like", whose use is submitted to some restrictions, so that the most usual equivalent of "like him" is *gēn* (or *tóng*, or *hé*, or *xiàng*) "with" + *tā* 3SG + *yīyàng* "one

manner", literally "with him identically" (cf. Hagège 1975: 400–1). Let us also recall that the Chinese *yǒu/ méiyǒu* equative/non-equative couple has an English parallel *like/unlike*, also in the comparative semantic field.

Japanese has no specific standard marker: it uses, to express it, the polysemic Po *to* (also used as a comitative marker). But it associates this Po with an adverb, *onaji* "as, like", often strengthened by another adverb, *kurai*. They appear in front of the word expressing the focus of comparison, and thus constitute degree markers, a tool which, in this language, is obligatory in comparative sentences, as shown by (64a). *kurai* can also (besides its uses as an adverb meaning "roughly, approximately" or "at least", and as a resultative Po: cf. example (39)) be used as an equative Po, as in (64b):

(64)   JAPANESE (Kuwae 1980: 767–8)
    a. *kyo: wa   kino: to   onajikurai atsui desu*
       today TOP yesterday with   as   hot   be.PRS.POL
       'today, the weather is as hot as yesterday'

    b. *kore   **kurai**   o:ki: hon   desu   yo*
       PROX.DEM EQU.Po big   book be.PRS.POL STR
       'it is as big a book as this'

The standard marker expressing the comparative of inequality is often an ablative case or Adp, which, by a polysemy explainable, again, in terms of metaphor, has both spatial and comparative uses. This is observed, in particular, with verbs or adjectives meaning "different (from)". Thus, in English, one says

(65)   *he comes **from** London*

as well as

(65′)   *he received this present **from** John*

and

(65″)   *she is different **from** Peter*

As another example of this semantic kinship between the abessive or ablative markers and the inequality standard marker, I will mention the Indonesian Pr *dari* "from", which is used both as in (66a) and (66b):

(66)   COLLOQUIAL INDONESIAN (Septiani Wulandari, p.c.)
    a. *kamu   **dari** mana?*
       2SG.INFOR from where?
       'where are you from?'

b. *dia (lebih) besar **dari** kamu*
3SG (more) tall   than 2SG.INFOR
'he is taller than you'

Morphemes specifically used as inequality standard markers are far from being obligatorily present in all languages. Some languages which do not have them do not have, either, any such words as *more* and *less*, respectively marking the comparatives of superiority and inferiority (these words, in any case, are often optional, at least in the colloquial Indonesian example (66b) above). Among the other available strategies, the most straightforward one consists of expressing only the focus of comparison, either by two antonymic words as in (67), or by two words one of which is negated, as in (68):

(67)   SIKA (Central Malayo-Polynesian, Austronesian, Indonesia) (Stassen 1985: 44)
dzarang tica   gahar, dzarang rei   kesik
horse   DIST.DEM big   horse   PROX.DEM small
'that horse is bigger than this one'

(68)   HIXKARYANA (Stassen 1985: 44)
kaw-ohra naha   Waraka, kaw naha   Kaywere
tall-NEG be.3SG Waraka   tall   be.3SG Kaywere
'Kaywere is taller than Waraka'

It was stressed in Section 3.4.5.1 that in a few languages Adps derived from a noun and meaning "in front of" or "before" also have the meaning "than". A more widespread comparative marker-building strategy is the grammaticalization of verbs into Adps: in the serial verb construction framework, either a verb "to compare" or a verb "to go beyond, to surpass", can yield a standard marker of inequality. The first option is found in South-East Asian languages, particularly in Chinese, the second one in Papuan and African languages, and in pidgins which, being derived from them, have kept some of their syntactic structures. They are illustrated, respectively, by examples (69) and (70):

(69)   MANDARIN CHINESE (Lü *et al.* 1980: 62)
tā   bǐ   nǐ   gāo
3SG than 2SG tall
'he is taller than you'

(70)   a. EWE (Kwa, Niger-Congo, Ghana, Togo) (Heine and Kuteva 2006: 280)
me lolo   wú   wo
1SG be.big surpass 2SG
'I am bigger than you'

b. NIGERIAN PIDGIN (Faraclas 1996: 110)

a   big   **pas**   yu
1SG be.big surpass   2SG
'I am bigger than you'

Thus it appears that the comparative semantic function is not as straightfor-wardly expressed in languages as other semantic functions in the notional domain of Adps. Before closing this section, I would also like to recall an interesting, and fairly rare, use of a comparative suffix following the ablative-governing Pr *ede* "in front of", in Veps, as illustrated by example (55) in Chapter 2.

5.3.3.4.e The essive (or predicative), and translative (or mutative) semantic functions. Adp-phrases as secondary predicates   In a number of languages there are morphemes that express the meanings "in the quality of", "in the situation of", "in the capacity of", "as (a)", that is, they mark nouns referring to a status, a quality, a condition, or a characteristic, whether inherent or acquired. Consider examples (71)–(77):

(71)   RUSSIAN (Mazon 1963: 127–8)

a. *on   oficer-ø*
   3M.SG   officer-NOM
   'he is an officer'

b. *tretij god on   služit   oficer-om*
   third year 3M.SG serve.3SG.PFT.PRS officer-INSTR.SG
   'he has served as officer for two years'

(72)   LITHUANIAN (Baltic, Indo-European, Lithuania) (Holvoet 2004: 80)

a. *jìs   bùvo   mókytojas*
   3SG.NOM.M be.3SG.IF professor.NOM.SG
   'he was a professor'

b. *jìs   bùvo   mókytoju*
   3SG.NOM.M be.3SG.IF professor.INSTR.SG
   'he worked as professor'

(73)   LATVIAN (Baltic, Indo-European, Latvia) (Holvoet 2004: 80)

a. *viņš   bija   skolotājs*
   3SG.M   be.3SG.IF professor.NOM.SG
   'he was a professor'

b. *viņš   bija   **par** skolotāju*
   3SG.M   be.3SG.IF as   professor.ACC.SG
   'he worked as professor'

(74) FINNISH (Laakkonen 1999: 211)
      kun   ol-i-n   viransijaise-na Lahde-ssa,   tul-i-n
      when be-PST-1SG substitute-ESS Lahti-INESS come-PST-1SG
      heti   sairaa-ksi
      immediately sick-TRSL
      'when I was a substitute in Lahti, I immediately fell ill'

(75) BRETON (Celtic, Indo-European, France) (Avezard-Roger et Costaouec
      2005: 100)
      hãõ   laba   giš mišawa
      3SG.M work.PRS as mill-hand
      'he works as a mill-hand'

(76) FRENCH
      a. *Jean vit **comme** un patron*
         'John lives like a boss'

      b. *Jean travaille **comme/en tant que** charpentier*
         'John works as carpenter'

(77) MARTINIQUE CREOLE (Martinique, France) (Jeannot-Fourcaud 2005: 134)
      a. *i   ka   travaj kõ ã   sekretɛ*
         3SG IPFT work like INDEF secretary
         'he works like a secretary'

      b. *i   ka   travaj kõ sekretɛ*
         3SG IPFT work as secretary
         'he works as a secretary'

In Russian, instead of a nominative nominal predicate like that appearing in
(71a), one can also use a nominal predicate in the instrumental case to refer
to a state or function, whose time extension is stressed in (71b) by the use of
an expression indicating a certain duration. Slavic languages without case
affixes, for example those which have lost nominal declensions: Bulgarian and
Macedonian use special Adps here: *kutu* in Našta, a dialect of Macedonian
spoken in North-Eastern Greece for instance (cf. Adamou 2005: 178). In Baltic
languages, which have a verb "to be" in the present and imperfect, we find a
situation like the one illustrated by Lithuanian, that is a contrast between the
nominative nominal in (72a) and the instrumental adverbial predicate in
(72b), both being associated with the verb "to be". Interestingly, another
Baltic language, Latvian, fairly close to Lithuanian both geographically and
typologically, has lost the instrumental case but, as seen in (73b), has recreated

a similar constrast by means of a Pr *par*, which governs the accusative and constitutes with it a Complex Adp.

In Finnish we note that, as shown by example (74), there are two cases, whose specific function is to refer to a status or condition. Taking over the names these cases have in the Finnish grammar tradition, the first one is the *essive* (*-na*): it refers to an already existing situation, as seen in the temporal subordinate clause *kun olin viransijaisena Lahdessa*, in which the adverbial phrase *viransijaisena* functions as a predicate; the second case is the *translative* (*-ksi*), referring to a change of state, as seen in the second part of the sentence in example (74), where the case-marked adverbial complement functions as a secondary predicate with respect to the verb *tulla* "come".

Example (75) shows that Breton has an essive Pr *giš*. In French and Martinique Creole the difference between a comparative adverbial Adp-phrase and a predicative or essive Adp-phrase, both marked by the same polysemic (comparative/essive) Pr *comme* or *kõ*, may be illustrated by examples (76) and (77), in both of which two criteria must be considered: one is semantic, the other is the presence vs. absence of the indefinite article, corresponding in English, as shown by the translations, to the contrast between *like* and *as (a)*. Furthermore, the French essive Compound Adp *en tant que* may replace the Pr *comme* when the latter has an essive meaning as in (76b), but not when the meaning of *comme* is comparative as in (76a).

In addition, many languages use Adp-phrases not only as main predicates of the types studied in Section 4.3, but also as secondary predicates, referring to a provisory status, quality or professional situation of the subject of the main predicate. Consider the following examples:

(78)   TURKISH (Divitçioglu-Chapelle 2005: 207)
    Aişe öğretmen olarak çalış-ıyor
    Aişe professor as   work-PRS.PROGR.3SG)
    'Aişe works as professor'

(79)   SOULETIN BASQUE (Coyos 2005: 82)
    a. *horrela ko   zozokeri-a-k   ema-ten d-ira*
    like.that LOC.GEN stupidity-ART-ABS.PL. give-PRS 3.ABS-be.PL
    edergintza greka eta erromatar-tzat
    art   Greek and Roman-INSTR
    'such stupidities claim to be Greek and Roman art'

    b. *mitil   bezala lagün-tzen d-ü-ø*
    servant as   help-PRS 3.ABS-have-3.ERG
    'he helps him as a servant'

(80) MANDARIN CHINESE (Hagège 1975: 395)
wŏ   yĭ   shèhuì kēxuéjiā de   shēnfēn tóng
1SG by.means.of society scientist CONN.Adp status   with
zhŭwèi   jiănghuà
you.people.FOR talk
'it is as a social scientist that I am talking to you, gentlemen'

(81) JAPANESE (Garnier et Mori 1987: 254)
seifu   no   ryūgakusei **toshite** *Doitsu   e*
government CONN.Adp scholar   as   Germany to
kagaku no   kenkyū
science CONN.Adp research
ni ni   nen hodo   ikimasu
for two year roughly go.IPFT.FOR
'I am going to Germany for two years as a government scholar to do
scientific research'

(82) FRENCH
il considère cet enfant **comme** *son fils*
'he considers this child (to be) his son'

(83) ENGLISH
    a. *the President* **qua** *Commander in Chief*
    b. *they want this sailor* **off** *the ship*
    c. *I don't want you* **in** *prison again*

(84) SOULETIN BASQUE (Coyos 2005: 82)
*mitil   **bezala** har-tü   d-ü-e*
servant as   take-PST 3.ABS-have-3ERG(ø).PL
'they took him as a servant'

(85) KOREAN (Koh 2005: 118)
na nən gɔ   saram ər   chingu **ro**   *sam-əs-ta*
1SG TMK DEM man   OMK friend AMK take-PST-ASS
'I took this man as a friend'

As seen in example (78), Turkish has an original Po, *olarak*, quite fit as an
essive Adp (to mark a noun functioning as a secondary predicate), since this
Po explicitly contains the state or change-of-state verb-copula *ol(mak)* "be,
become", followed by the concomitance gerund marker *-arak/-erek*. In this
example, *olarak* may be replaced with *diye*, another Po formed in the same
way (*de* "say" + gerund marker *-(y)e* "by.means.of"), but given this formation

and the still present meaning, the implication would be pejorative: "Aişe works as professor (but is not really one)".

In example (79) we see a transitive verb, *eman* "give", used with the auxiliary *isan* "be", a combination whose effect is to make this verb intransitive and able to function in Souletin Basque like a stative verb, hence the phrase *edergintza greka eta erromatar-tzat*. This phrase, with its instrumental case suffix -*tzat*, comparable to the Russian or Lithuanian instrumental case suffixes in examples (71b) and (72b) or to the Finnish essive or predicative case suffix -*na* in example (74), functions as an essive complement. Souletin Basque has a Po *bezala*, which can be replaced, with the same meaning, by *gisa* (from Spanish *guisa* "guise") or *manera* (from Spanish *manera* "manner") and is also a marker of the essive or predicative semantic function.

Example (80) shows that Mandarin Chinese uses an instrumentive Pr *yĭ* "by means of" with a governed term *shēnfēn* "status", which itself functions as the head of a noun referring to the status in question, and is related to this noun by the Conn.Adp *de*. In example (81) we see that Japanese, on the other hand, has the construction *X to shite*, literally "doing (the thing) which (is) X". There is no compelling reason not to treat *toshite* as a predicative Compound Adp, even though Japanese specialists, as far as I know, do not do so.

In examples (82)–(85) we have another structure: the predicative Adp-phrase functions there as an attribute of the object, and indicates that a change has occurred with respect to this object, hence the label *mutative* or *translative* which can be given to this semantic function. This function is marked, in French and Souletin Basque respectively, by the polysemic Adps *comme* and *bezala*, also used, as seen above, as essive-predicative markers. In (82) the syntactic dependency between the main predicate and the Adp-phrase functioning as secondary predicate is shown by the fact that neither

(82′)   *il considère cet enfant,

nor

(82″)   *il considère comme son fils

are possible French sentences. While (83a) contains the essive Latinate Pr *qua* of English, (83b), which means "they want this sailor to be rejected (or thrown) out of the ship", contains the English Pr *off*, which, along with its ablative meaning, also has, as here, a mutative meaning. In example (83c), it seems that *you in prison* should not be analysed as the association of a pronoun with an adnominal Adp phrase, such as was studied in Section 4.2, because *in prison* does not simply depend on *you* syntactically, let alone semantically, in the same way as *on the shelf* depends on *the book* in *the book*

on the shelf. Thus, in example (83c), *in prison* refers to the state that the speaker does not want to see happening, just as *off the ship* refers to the situation that those to whom (83b) refers want to impose on the unfortunate sailor! The semantic link between *this sailor* and *off the ship*, as well as between *you* and *in prison* is not unrelated to that between the constituent parts of subject–predicate associations, or, in McCawley's (1983) terms, " 'absolute with' constructions". But in these constructions, the whole phrase following *with* is governed by it, even if one accepts McCawley's analysis of these structures as requiring an underlying *be* or *have* (cf. Section 4.1.3.1). McCawley, who cites the sentence reproduced here as (83c), says (1983: 285–6) that in this sentence type (brought to his attention by Geoffrey Nathan), one should posit an underlying verb *be*.

In (84) the verb *har* does not have the concrete meaning of a verb of taking; it means the choice of someone for some status or function, like other verbs with the same construction: *hauta* "select (someone as X)", *izenda* "appoint (someone to be X)", etc.

The Korean morpheme *ro*, not always mentioned among the important Pos of this language, has many uses: it can adverbialize an adjective or a noun (often a Sino-Korean one), it can also govern, due to its polysemic nature, adverbial complements with various meanings: direction, manner, means, instrument. Example (85) shows another, interesting, use of *ro*, as a marker of adpositional attributes of the object functioning as a secondary predicate. According to Koh (2005: 118), this function of *ro* is found only with a limited number of verbs which obligatorily require this construction: *ganzuha(-da)* "call (someone or something some name)", *jʌgi(-da)* "consider (someone or something (as) someone or something)", *sam(-da)* "take (someone) as (someone or something)", which is the verb occurring in example (85). Thus Korean *ro* is, among other uses, a mutative function marker.

As noted above, most Adps used as markers of the essive and translative semantic function are polysemic, since they are also used to mark the comparative. Some of them, however, are specific. In general, the semantic functions studied in Sections 5.3.3.4.b–d are the most important ones. However, I have included in Table 5.1, on the same line because of semantic closeness and identical marking in most languages, the essive and translative semantic functions, even though they are less common. But Table 5.1 does not contain some even less common semantic functions, which I will now present, in the following and final section.

5.3.3.4.f Uncommon semantic functions: affective and mental state Adp-phrases   Specialists of Daghestanian languages call *affective* a semantic

and the still present meaning, the implication would be pejorative: "Aişe works as professor (but is not really one)".

In example (79) we see a transitive verb, *eman* "give", used with the auxiliary *isan* "be", a combination whose effect is to make this verb intransitive and able to function in Souletin Basque like a stative verb, hence the phrase *edergintza greka eta erromatar-tzat*. This phrase, with its instrumental case suffix -*tzat*, comparable to the Russian or Lithuanian instrumental case suffixes in examples (71b) and (72b) or to the Finnish essive or predicative case suffix -*na* in example (74), functions as an essive complement. Souletin Basque has a Po *bezala*, which can be replaced, with the same meaning, by *gisa* (from Spanish *guisa* "guise") or *manera* (from Spanish *manera* "manner") and is also a marker of the essive or predicative semantic function.

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(82″)   **il considère comme son fils*

are possible French sentences. While (83a) contains the essive Latinate Pr *qua* of English, (83b), which means "they want this sailor to be rejected (or thrown) out of the ship", contains the English Pr *off*, which, along with its ablative meaning, also has, as here, a mutative meaning. In example (83c), it seems that *you in prison* should not be analysed as the association of a pronoun with an adnominal Adp phrase, such as was studied in Section 4.2, because *in prison* does not simply depend on *you* syntactically, let alone semantically, in the same way as *on the shelf* depends on *the book* in *the book*

on the shelf. Thus, in example (83c), *in prison* refers to the state that the speaker does not want to see happening, just as *off the ship* refers to the situation that those to whom (83b) refers want to impose on the unfortunate sailor! The semantic link between *this sailor* and *off the ship*, as well as between *you* and *in prison* is not unrelated to that between the constituent parts of subject–predicate associations, or, in McCawley's (1983) terms, " 'absolute with' constructions". But in these constructions, the whole phrase following *with* is governed by it, even if one accepts McCawley's analysis of these structures as requiring an underlying *be* or *have* (cf. Section 4.1.3.1). McCawley, who cites the sentence reproduced here as (83c), says (1983: 285–6) that in this sentence type (brought to his attention by Geoffrey Nathan), one should posit an underlying verb *be*.

In (84) the verb *har* does not have the concrete meaning of a verb of taking; it means the choice of someone for some status or function, like other verbs with the same construction: *hauta* "select (someone as X)", *izenda* "appoint (someone to be X)", etc.

The Korean morpheme *ro*, not always mentioned among the important Pos of this language, has many uses: it can adverbialize an adjective or a noun (often a Sino-Korean one), it can also govern, due to its polysemic nature, adverbial complements with various meanings: direction, manner, means, instrument. Example (85) shows another, interesting, use of *ro*, as a marker of adpositional attributes of the object functioning as a secondary predicate. According to Koh (2005: 118), this function of *ro* is found only with a limited number of verbs which obligatorily require this construction: *ganzuha(-da)* "call (someone or something some name)", *jʌgi(-da)* "consider (someone or something (as) someone or something)", *sam(-da)* "take (someone) as (someone or something)", which is the verb occurring in example (85). Thus Korean *ro* is, among other uses, a mutative function marker.

As noted above, most Adps used as markers of the essive and translative semantic function are polysemic, since they are also used to mark the comparative. Some of them, however, are specific. In general, the semantic functions studied in Sections 5.3.3.4.b–d are the most important ones. However, I have included in Table 5.1, on the same line because of semantic closeness and identical marking in most languages, the essive and translative semantic functions, even though they are less common. But Table 5.1 does not contain some even less common semantic functions, which I will now present, in the following and final section.

5.3.3.4.f Uncommon semantic functions: affective and mental state Adp-phrases   Specialists of Daghestanian languages call *affective* a semantic

function marked in Godoberi, to take an example (cf. Kibrik 1996: 79–80; Hagège 2006*a*: 115), by a suffix -*ra* added to experiencers associated with one of the four verbs *ha'a* "to see", *anła* "to hear", *b* = *i'a* (= represents the neuter) "to know" and *b* = *e'uča* "to forget". We note that here, as in many languages where affect-marking is an important part of the morphology, a verb of cognition is treated in the same way as verbs of affect proper (cf. Hagège 2006*a*: 121–2). In other Nakh-Daghestanian languages a special morpheme, *ba* in Bagwalal (cf. Tatevosov 2002: 381–2), *k'le* in Tsakhur (cf. Kibrik and Testelec 1999: 351–2), is suffixed to the noun representing the experiencer when the predicate is a verb of perception or cognition (verbs of emotion generally govern the dative case (attributive semantic function) in these languages). Comparable phenomena exist in some Oceanic languages, like Xârâcùù (cf. the Pr *wã* in example (23b) in Chapter 4). Other affective morphemes are found in several languages (Inuktitut varieties, Warrungu, Kusaeian: cf. Hagège 2006*a*: 116 and fn. 11), with the morphological status of verbal affixes, not Adps, which does not mean, of course, given the semantic perspective of the present chapter, that they do not deserve to be mentioned.

Another interesting, and typologically rare, phenomenon is found in Cariban languages. Consider (86a–c) (example (34b) from Chapter 2 is reproduced here, for ease of reference, as (86b)):

(86)   a. Tɪʀɪʏó (Cariban, Brazil, Suriname) (Carlin 2003: 175)
       kaikui i-no   *wae*
       jaguar 3SG-APPR.Po be.1SG
       'I am afraid of the jaguar'

      b. Tɪʀɪʏó (Meira 2004: 218–19)
       j-eira-to
       1SG-IRAS.Po-NZR
       'one who is angry at me'

      c. Gᴀʟɪʙɪ (Renault-Lescure 1981: 76)
       tu:na-se-pa   *wa*
       water-DES.Po-NEG be.1SG
       'I am not thirsty'

What we have here are mental state postpositional predicates, in association with a copula.

Tiriyó *no*, occurring in example (86a), means "in a state of fear of"; in this sentence, *no*'s governed term is the group *kaikui* "jaguar" (apposition) + *i* (third person marker), according to a characteristic structure of Cariban languages (among others). Tiriyó *eira* in example (86b) can be translated by

"in a state of anger towards". Galibi *se* means "in a state of desire of", and sentence (86c) could be literally translated, following the Galibi word order, as "water-in.desire.of-not I.am". Since the governed term of these Pos is the experiencer of a mental state (cf. Hagège 2006*a*), we can also call them experiencer Pos.

Meira (2004: 223) offers arguments showing the postpositional nature of the words written in boldface in examples (86) above. According to Meira (*ibid.*), there are at least twelve experiencer Pos of this kind in Tiriyó, among which apprehensive *no*, illustrated in example (86a) is also present in Australian languages (Yallop (1977: 75), describing Alyawarra, uses the rather clumsy label "negative causative"). Tiriyó also possesses markers of various other semantic functions. I will mention four of them—*waarë, wame(ke), epona, aame(ke)*—which Meira (2004: 225) terms respectively, "cognoscitive", "ignorative", "fidelitive", and "odiative". Instead of the last one, I would rather coin the term *aversitive* (AVRS) (not to be confused with *avertive* (AVT), a term I suggested some years ago to Tania Kuteva instead of her "N(arrowly) A (verted) A(ction)" modality (Kuteva 1998)). I translate these Pos, respectively, as "in.knowledge.of", "in.ignorance.of", "in.trust.towards", and "in.hatred. for". Other Cariban languages, as well as Galibi and Tiriyó, possess experiencer Pos, among them Hixkaryana, Waiwai, Apalaí, Bakairi, Macushi, Katxuyana, and Wayana (cf. Meira 2004: 231–6).

5.3.3.5 *Unattested semantic functions and the problem of name-worthy cognitive contents*   It was pointed out in Section 4.1.3.2.a that certain Adps can exhibit the same syntactic behaviour as conjunctions, and thus govern a clause, especially in the interrogative mood in a language like English, as shown, for *about* and *on*, respectively by examples (63)–(63′) and (64)–(64′) in Chapter 4, reproduced here as (87)–(87′) and (88)–(88′):

(87)   *he is thinking **about** this subject*

(87′)   *he is thinking **about** why this happened*

(88)   *they disagreed **on** the trial*

(88′)   *they disagreed **on** what to do.*

It was also stressed that the reverse, however, is not true: the English sentence (65) in Chapter 4, reproduced here as (89):

(89)   *I was happy **when** he came*

has no equivalent with a pronoun instead of a clause, as in

(89′)   *I was happy when this*

I gave in Section 4.1.3.2.a a syntactic argument, namely that conjunctions do not govern Adp-phrases. But Adps with the same meaning as *when*, namely Adps marking the temporal inessive function, like English *in, on, at, as of*, do not take pronouns referring to human beings as their governed terms either. Corresponding to

(90)   *they will arrive on Tuesday,*

there is no

(91)   **they will arrive on you*

Similarly, I know of no marker of the hypothetical (or reality condition) meaning which can govern, in any language, a pronoun referring to a human being. In other words, while hypothetical subordinating conjunctions, as in

(92)   *if he comes, we will leave,*

are quite common in languages, and, to a lesser extent, hypothetical Adps, as in

(93)   *in case of need, they will come,*

one may wonder whether there are languages in which one can commonly say what in English would be

(94)   **in case of him, we will leave.*

One could speculate on the reasons for this gap, at least in English, French, Spanish, German, Russian, etc., by saying that human persons, such as expressed by personal pronouns, are not sets of conditioned occurrences, nor, to explain the lack of sentences like (91), sets of successive moments. It may be preferable to leave the present book open on a query which might, some day, receive a response. The issue is interesting, since what is at stake here is to know to what extent certain cognitive contents are name-worthy or not. All the cognitive contents expressed by the Adps in Table 5.1 are name-worthy, by definition, since at least some, and, more often than not, many, languages express some or many of them. It would perhaps be more accurate, instead of saying that these cognitive contents are name-worthy, to say that human societies, when building their languages, have, consciously (cf. Hagège 1993: ch. 1, 2005*b*) or half-consciously, deemed them to be so. But one may consider that through the evolution of our species (partly in its relationship with the artefacts of computer science), human beings might appear some day

as liable, or likely, at least in some respects, to be viewed in terms of successions of moments or circumstances. In such a perspective, sentences like (91) or (94) would perhaps not be ruled out. But of course, the problem remains whether human languages, then, will still have a form comparable to the one we treat, today, with our present tools of linguistic analysis.

In this chapter, I have shown that Adps are an interesting and fruitful domain with respect to the study of the relationship between syntactic and semantic phenomena. I have also examined the contribution of Adps and Adp-phrases to the construction and interpretation of meaning, and shown, in particular, that the semantic contents of Adps, despite the importance of their situation in contexts as function-markers, is also defined by the existence of paradigmatic relationships within a set of semantic functions. I have indicated the main features of this set of relationships, among which every language makes its own selection by the way it elaborates its adpositional system. I have finally described the four semantic domains, namely core, spatial, temporal, and notional, which are, crosslinguistically, those expressed by Adps. I have also tackled the problem of name-worthy cognitive contents. It is hoped that this semantic study of Adps will prompt linguists to pursue the research on this little-explored, and yet fundamental, aspect of languages.

6

Conclusion and prospects

6.1 Results of the present work

In this book I have presented a study which deals, in the limits of current knowledge, with all the diverse kinds of adpositions

- in a crosslinguistic perspective
- for their own sake only.

Given such characteristics, this book treats a number of topics which, so far, were still untreated or at least it contains certain studies which, on already treated topics, adopt a new perspective or go into further detail. I will stress in this conclusion some of those that might deserve to be recalled:

- A comparison between adpositions and case affixes which tries to go beyond the repeated statement of their functional equivalence (Section 2.2.2).
- A contrastive study of adpositions with respect to other word-classes with which they might be, and often are, confused (2.4), such as topicalizers, coordinators, and locative class markers, here characterized as a new, so far unheeded, category, which I call *chorophorics* (2.4.2.4); in this study an important, and quite neglected, semantic and cognitive distinction is introduced: that between place as an entity and place as an inherent spatial relation.
- A definition and examination of the characteristics of complex adpositions and compound adpositions, never studied, heretofore, for themselves (2.2.3 and 3.3.2).
- A description of the relationships between adpositions and
  - preverbs (2.4.1.1),
  - adverbs (2.3.1),
  - applicatives (2.4.1.3.c),
  - conjunctions (4.1.3.2.a).

- The phenomenon of conjugated adpositions (3.4.6.1).
- An examination of a number of interesting constructions and their relationships, for example subject–predicate constructions, "'with' absolute constructions" (4.1.3.1) in English, and, crosslinguistically, adpositional phrases as secondary predicates, and the essive (or predicative), translative (or mutative) semantic functions (5.3.3.4.e).
- Special syntactic uses of adpositional phrases in functions other than that of adverbial complements, which is the only one to be thoroughly treated, so far, in traditional works and in contemporary linguistic typology. I have, therefore, studied adpositional phrases as:
  - subjects (4.1.2.3.a),
  - objects (4.1.2.3.b),
  - adnominal complements, another so far undescribed phenomenon (4.2),
  - predicates (4.3).
- Implicational hierarchies such as:
  - the hierarchy for spatial functions with respect to complex adpositions vs. case affixes ((16) in 4.1.2.1),
  - the hierarchy for adpositions and complex adpositions with respect to concrete vs. abstract semantic functions (*ibid.*).
- An assessment of the sociolinguistic phenomenon by which the public authority introduces new adpositions into a language which lacked them, either by specializing a lexeme in adpositional use (as in Thai), or by reviving, with the assent of the whole community of speakers, a function marker which had become obsolete (as in Israeli Hebrew) (2.2.2.4.e).

This book has presented as well a study of the role played by adpositional phrases in the way semantic classes are mapped onto word classes and syntactic functions (5.1.1). It has also provided a general table (Table 5.1) of all the semantic functions fulfilled by adpositions crosslinguistically. By so doing, the book has coined a number of new terms referring to these functions, such as *circumlative, pertentive, roborative,* or *secutive.* The book has organized the semantic functions designated by these new terms into four domains in which adpositions play their role as function markers: the core domain, and the non-core domains: namely the spatial, temporal, and relational domains. All these domains have been studied in detail, and their relationships stressed.

6.2 Adpositions as morpholexical units shedding light on a theory of linguistic categories

6.2.1 *Adpositions and the theory of the category*

By establishing adpositions as a constantly referred to but never really demonstrated language category, this book has provided the basis for a theory of the linguistic category. Adpositions have much to teach us about the nature of an analytical category, and thus make a significant contribution to a theory of the category in linguistics, as shown, among other passages, in Section 3.4.2. Adpositions could be considered a clear-cut category if one relied on syntax only, for one simple reason: they are specialized in function-marking. But this criterion is not sufficient. If it is useful, this is only to the extent that it characterizes adpositions when compared to acategorial language elements, such as "particles", which, unlike adpositions, do not display any defining properties which would be common to all of them. Quite to the contrary, adpositions share many defining properties that distinguish them together from a number of other categories. These properties allow one to distinguish linguistic phenomena that can be deemed to be adpositions from those that cannot, as has been done in detail in Sections 2.2 and 2.4.

6.2.2 *Adpositions as a morpholexical category*

Adpositions in fact constitute a much more complex set than might be judged by relying on syntactic criteria only. First, adpositions display an extraordinary variety of forms and combinations, as illustrated in Chapter 3. Second, adpositions cover an enormous field of meanings, as shown by Table 5.1 and the whole of Chapter 5. For these two reasons, adpositions constitute an outstanding topic in semantic as well as in morphological terms. As a consequence, adpositions should no longer be considered a morphological category, as is generally said or implied in linguists' works. **Adpositions are a morpholexical category** (cf. Section 5.2.1). To that extent, they occupy a central situation among language categories, even though they are neither indispensable nor universal. Studying adpositions sheds light on the problem of the "boundaries" between lexicon and grammar, by unearthing the organization of a set of morphemes, that is elements allegedly belonging to grammar, which, in actual fact, also belong to the lexicon: these elements, far from being mere tools, have complex, rich and far-reaching semantic contents and cognitive implications.

6.3 Adpositions as midpoints and images of language leaks and diachronic drifts

6.3.1 *Adpositions as midpoints*

One of the most conspicuous teachings of the present book is that adpositions are midway in many gradual grammaticalization paths. This has appeared in the study of the boundaries between adpositions and case affixes. This study occupies (cf. Section 2.2.2) thirty pages, not for just the practical purpose of limiting the scope of this book, but because of the very nature of the topic chosen here. Adpositions feed, and are fed by, case affixes. Moreover, the variable grade of adposition grammaticalization is revealed by many of the combination phenomena in which they are involved, for example their interaction with articles (Section 3.3.3.3).

6.3.2 *Adpositions as images of language leaks and diachronic drifts*

The examination of the links between adpositions and the two main lexematic categories, verbs and nouns (Sections 3.4.4–3.4.5), has shown that adpositions reflect better than most other categories the moving and unstable nature of human languages. This is true even for adpositions which are not notoriously derived from verbs or nouns in diachrony. Adpositions are a quite dynamic category. They reflect the dynamic moves of languages themselves. This is true not only of those adpositions which, in many languages, are linked with verbs and nouns by a process of tool construction; it is also true of adpositions which are themselves sources of further grammaticalizations and new units, as studied in Section 2.5. Adpositions walk along many grammaticalization paths. The study of adpositions gives us many interesting clues to the mechanisms of language change. This diachronic treatment is of course not opposed to a synchronic perspective.

6.3.3 *Relying on the data*

The theory of the category which I have tried to establish here to account for the midpoint nature of adpositions as an analytical category is not something imposed by the author on the empirical data. Rather, it is something that emerges from the process of the author engaging with the data. These data suggest that defining adpositions as a self-sufficient grammar category which has interesting ties with verbs and nouns does not require only syntactic feature definitions such as those provided by theoretical models, for example cognitive semantics (referred to in Section 3.4.1). First and foremost, defining adpositions requires dwelling on the importance of morphology.

6.4　On morphology[1] as the most linguistic component of human languages. The importance of morphosemantics

6.4.1　*The pressure of syntax*

The pressure of many decades of the primacy of generative and other formalist models has not yet subsided. One of its most negative effects is the enormous weight given to syntax.[2] This has admittedly resulted in many interesting and important studies, among others on actancy, predication, complementation, ergativity, possession, and many other topics. I do not deny that in this way, syntactic studies have received an unprecedented and seminal impulse. I have myself used here (3.4.1) a proposal made by Noam Chomsky regarding categories, and among them prepositions, in the framework of the X-bar theory. But if one can, with a touch of eclectism, retain some useful procedures proposed by available formal models, this does not mean that one loses sight of their dangers.

6.4.2　*On the primacy of morphology and semantics*

The main danger of the excessive weight of syntax even today, and even among typologists working in a functionalist framework, is that it may eventually bring about a neglect of the primacy of morphology. Syntax is common to languages and to logical systems. Non-linguists are sometimes able to understand various aspects of the syntax of languages. The only component of languages which professional linguists are better prepared than laymen to deal with in a scientific way—also the most "difficult" and the one in which non-specialists are least interested—is morphology. It will be noted that Chapter 4, the one dealing with syntax, is the shortest of this book. This is, of course, due to the fact that adpositions as a linguistic category have never been thoroughly studied in a typological and largely crosslinguistic perspective; therefore, this area required a careful morphological study, conducted in Chapters 2 and 3, the longest ones. But in addition, Chapter 5, on semantics, is conceivable in tight solidarity with the morphological chapters, to which reference is often made throughout chapter 5. This is because the material form of adpositions is not an aim in itself. It owes its necessity to the

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[1]　What I mean here is morphology proper as a component of human languages, namely the various word-classes and their forms. I am therefore not referring here to morphology as a formal theory on complex units (compounds and derivatives). Theories of that kind are, for instance, Construction Morphology (cf. Goldberg 1995), or Natural Morphology (cf. Dressler 2005).

[2]　It is as if those who are not exclusively syntacticians had to pay a sin-tax, according to Adam Makkai's personal communication.

very fact that by their material form, adpositions and adpositional phrases, besides serving the syntactic role of function markers, perform a higher task: expressing semantic content. The main task of linguistics is to deal with morphosemantics.

On a general level, this book has shown that the study of adpositions makes it clear that morphology and syntax, although associated by many links, are fairly independent from each other.

Some of these points might raise criticism, which will perhaps be useful for the progress of research. It is hoped, however, that the book will have contributed to encouraging typologists and general linguists to recognize adpositions, in the future, for what they are: an essential word-class, whose study cannot be neglected, or subsumed under allegedly more general headings.

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