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Form and Function in Language Research

Papers in Honour of Christian Lehmann

Edited by

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Yoko Nishina
Yong-Min Shin
Stavros Skopeteas
Elisabeth Verhoeven

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The internal structure of adpositional phrases
Silvia Luraghi

1.   Introduction

The aim of this paper is to discuss the relation that holds between adpositions and nouns in languages in which the same adposition can occur with different cases, as for example in German:

(1)   a.   *Ich fahre in der Stadt.*
            'I drive inside the town (dat.).'
      b.   *Ich fahre in die Stadt.*
            'I drive into town (acc.).'

In German, case variation with prepositions as shown in (1a) and (1b) contributes to specifying the semantic role of prepositional phrases.[1] This fact is at odds with current definitions of government. Usually, the relation between an adposition and its complement is considered a typical example of government. The problem with examples such as (1a) and (1b) comes from the occurrence of different cases, since the definition of government implies that on the side of the governed element there is no possible variation of form that can also convey different meanings: so for example the definition of government in the linguistic dictionary of Lewandowski (1985: 835) reads as follows: "Rektion: 1) Bestimmung des Kasus eines grammatisch-syntaktisch abhängigen Wortes durch ein übergeordnetes Wort; ... 2) Einseitig gerichtete Abhängigkeitsbeziehungen zwischen Verb und notwendige Ergänzungsbestimmungen;... 3) Die Relation der Dependenz. Das Regens regiert seine Dependentien".

In the present paper, I would like to elaborate on the notion of government, in connection with the occurrence of different cases with the same preposition (case variation) in some Indo-European languages.[2] I will argue that case variation in examples such as (1a) and (1b) can be accounted for by using a scalar and multifactorial definition of government, connected with our knowledge about grammaticalization processes and language change. I will also show that not all instances of case variation actually represent the same phenomenon, even within the same language, and that

cases may have functions that are not typical of their category. In such instances, it is not the notion of government that needs to be modified, but rather the definition of cases involved.

2. Government and modification

Christian Lehmann devoted various papers to the nature of syntactic relations. According to his classification, given below in Figure 1, dependency relations are divided into two types: government and modification (see further Lehmann 1985a). Lehmann describes the development of adpositions as follows (Lehmann 1999):[3]

(2) X = body part > local noun > relational noun > adposition

Examples of this development are easily available from numerous languages; cf. the English word *front* in the expression *in front of*, and similar developments of its cognates in the Romance languages.[4]

One must note further that, at least in the Indo-European languages, X is from the beginning on the head of the phrase, but at the stage represented by *body part noun* it is modified by its dependent. In other words, the phrase at that stage is endocentric: The dependent can be left out, much in the same way as the modifier of a noun phrase. Body part nouns (or relational nouns of different origin)[5] that undergo the process outlined above develop into adverbs, which can still head endocentric phrases if they can occur alone. Only when the adverbs become adpositions and must obligatorily take a complement the phrase changes from endocentric to exocen-

Figure 1.   Taxonomy of syntactic relations (cf. Lehmann 1983: 341)

tric. If we consider the example of *in front of*, we find that the nominal origin of the expression is still clear, in the occurrence of the preposition *of*, that indicates nominal dependency, but in fact the phrase headed by *in front* is exocentric, because the complement is obligatory and *in front* can occur alone only to a limited extent.[6]
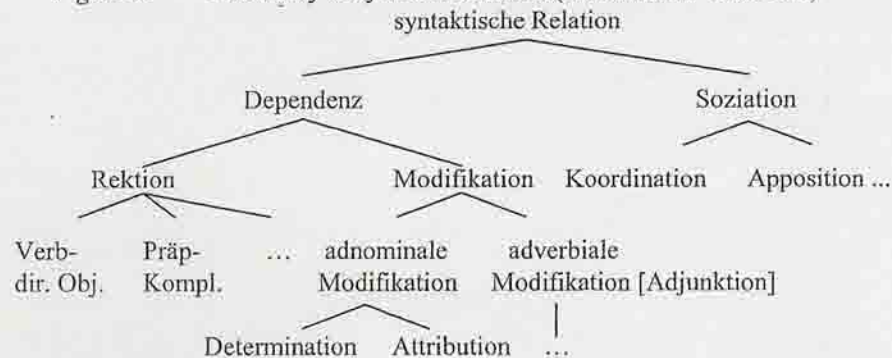
Case variation with adpositions has been variously approached by scholars within different theoretical frameworks; besides, this phenomenon is often described for one or another Indo-European language by specialists who have little knowledge of the pertinent literature on other languages. The combination of these two tendencies makes the issue very complicated; in my paper, I offer a partial discussion and a possible solution regarding the notion of government, but I am well aware of the fact that the issue would deserve a wider and more systematic treatment than what I am going to offer in the following pages.

While I am not going to discuss possible semantic motivation of case variation in German exhaustively,[7] I would like to mention that, beside discussing variation between the dative and the accusative as in examples (1a) and (1b), Di Meola (2000) also points out that variation between the dative and the genitive with some German prepositions, such as *entlang* 'along', is connected with linguistic registers, rather than conveying information relative to the semantic role of the PP (or some other type of semantic difference). This remark is important because it shows that case variation with adpositions can have different motivations, and that this can happen even within the same language. Furthermore, not being connected with a change in the function of the PP, this type of alternation does not create problems for the definition of government: simply, the preposition *entlang* governs the dative in certain register and the genitive in another, more formal one. I will come back to this point in section 5.2.2.

Among possible answers to the question what notion of government must be used to describe case variation with adposition, scholars have suggested that the two occurrences of *in* in (1a) and (1b) should be considered as representing two different (homophonous) prepositions, or that the preposition and the case ending must be regarded as parts of a discontinuous morpheme.[8] I will discuss these two hypotheses in sections 3.2 and 3.3. I will not consider another possible solution, namely that there are no prepositions with case variation in German at all.[9]

Because the existence of homophones has been set up in order to explain double behavior of certain lexical items that can function as adposi-

tions and as adverbs, I will briefly discuss the categorial status of such words in the next section.

3. Adverbs, adpositions, and cases

3.1. The Indo-European preverbs

Preverbs are a peculiar lexical class of Indo-European; even in the oldest written records they also have adpositional usage. The possibility for the same adposition to occur with different cases is also typical of the Indo-European languages.[10]

The Indo-European case system included four cases that could occur with adpositions: locative, accusative (which could function as an allative), ablative, and instrumental.[11] In Old Indic, for example, one can observe a relation by which a NP is added to the adverb/adposition as an apposition, as in (3):

(3)   *è 'ntáḥ* 'in the mouth, inside' (with the locative)
       yãd antáḥ 'out of (the interior of) the mouth' (with the ablative)
       (adapted from Delbrück 1893: 673).

In the above phrases, the noun is a modifier of an adverb, rather than a complement of an adposition; evidence is provided by the fact that the noun in the ablative alone could express the same spatial relation (i.e. it can occur alone and mean 'out of the mouth'). The adverb, which is not obligatory, denotes a spatial region; the case ending adds information as to the specific semantic role of the phrase (e.g. locative or ablative, as in (3)). The same adverbs can also take a genitive modifier, thus behaving as a noun, as in (4):[12]

(4)   *antár sárvasya* 'inside the world' (*antár* and *antáḥ* are allomorphs of the same adverb; from Delbrück 1893: 673).

The categorial status of the Indo-European preverbs has often been considered problematic: it is not clear whether they are adverbs or adpositions; besides, they can also be prefixed to verbs. Note that this peculiarity is preserved in some modern Indo-European languages in spite of the loss of morphological case, as shown in the following English examples:

(5)   a.   *We met over lunch.* (preposition)
       b.   *The next town over.* (adverb)
       c.   *Hand it over.* (verb particle)[13]

Adverbial and adpositional behavior on the side of the same linguistic item has also been explained resorting to homophony, much in the same way as the occurrence of different cases with the same adposition. Resorting to homophones may be a convenient solution, but there are other facts that should make us suspicious about the need for homophones: for example, many other adverbs, of later origin, and which cannot be reconnected to the Indo-European preverbs, also share this ambiguous behavior, as we will see in section 3.3. I will suggest that double behavior derives from the existence of a continuum between the lexical categories adposition and adverb, and that homophones should be set up only in cases in which there is clear historical and semantic evidence for their existence.

3.2. Discontinuous morpheme

3.2.1. Prepositions and cases in the Indo-European languages according to Kuryłowicz

Kuryłowicz devoted a number of studies to cases in Indo-European. His suggestion with respect to the use of cases with prepositions is that the case ending and the preposition together constitute a discontinuous morpheme:[14]

(6)   *extra /urb/ em* (Kuryłowicz 1949: 134).

This solution, which is also argued for by Touratier (1978), raises a number of problems. In the first place, there is little support from diachrony. Historically, adpositions do in some cases develop into case affixes, but this is generally not the case for prepositions in the Indo-European languages: I will come back to this issue below, in the discussion of the data in (6).

It can further be remarked that commonly occurring discontinuous morphemes are constituted by (sub-)morphs that do not express a compositional meaning and mostly cannot occur alone. A typical example of a discontinuous morpheme is the morpheme of the German past participle, which also shows that even the particular allomorph of the stem often can-

not occur alone: *ge-sung-en* can be analyzed as such, but there are neither an independent **gesung* nor an independent **sungen*.[15] The analysis in (6) implies that a certain case ending, e.g. *-em* of the accusative, should be viewed as a complete morpheme when it occurs without prepositions, and only a part of a bigger morpheme when it occurs within a prepositional phrase.

3.2.2. Coalescence of affixes in agglutinative languages

A partly similar position is argued for in Beard (1995). Beard mentions the following examples form Serbo-Croatian, where we find the typical Indo-European situation in which the same preposition takes two cases, based on the motion/rest opposition:

(7) a. *lež ati pod kamen-om*   a'. *ići pod kamen-Ø*
         'lie under the rock-INST'   'go under the rock-ACC'

     b. *lež ati nad kamen-om*   b'. *ići nad kamen-Ø*
         'lie over the rock-INST'   'go over the rock-ACC'

     c. *lež ati za kamen-om*   c'. *ići za kamen-Ø*
         'lie behind the rock-INST'   'go behind the rock-ACC'

     d. *lež ati pred kamen-om*   d'. *ići pred kamen-Ø*
         'lie in front of the rock-INST'   'go in front of the rock-ACC'

Beard compares Serbo-Croatian with Lezgian, an agglutinating language, in which the same affix that expresses location relative to a referent can be followed by other affixes, that express locative, allative, and ablative:

(8) a. Locative II   *sevre-x^h*   'behind the bear'
     b. Ablative II   *sevre-x^h-aj*   '(out) from behind the bear'
     c. Goal II   *sevre-x^h-di*   'to the bear'
     d. Locative III *sevre-k*   'under the bear'
     e. Ablative III *sevre-k-aj*   '(out) from under the bear'
     f. Goal III   *sevre-k-di*   '(to) under the bear'

(Beard 1995: 265f.)

Beard argues that:

> The interesting aspect of this [i.e. the Serbo-Croatian] paradigm is that the Case but not the preposition changes with the function. It is difficult to claim that the preposition governs the Case in these instances since the P does not change with the Locus-Goal functions. Either cases determine preposition selection or some third factor controls both the Case ending and preposition. In the current framework, ..., the P + Instrumental ... expresses [Locus [x-essive]], while the P + Accusative ... expresses [Goal[X-essive]]. The cleanest account of these P + Case relations, then, is that the primary spatial functions, Locus and Goal, select the Locative [sic] and Accusative Case, respectively, while the secondary functions, Subessive, Superessive, Posterior, and Anterior, select the preposition. In other words, function determines Case endings and prepositions alike but independently. (Beard 1995: 265)

and reaches the conclusions that (a) adpositions are grammatical morphemes and not lexemes, and (b) adpositions are functional markers in a class with inflectional endings and not function assigners (Beard 1995, chap. 10, 11).

The parallel between Indo-European and Lezgian only seemingly holds. In some agglutinative languages the Lezgian situation can be reconstructed, but the affixes are no longer clearly separate, as in Finnish and Hungarian:

(9) Finnish:

inessive	*talo-ssa < *-s-na*	adessive	*katto-lla < *-l-na*
elative	*talo-sta < *-s-ta*	ablative	*katto-lta < *-l-ta*
illative	*talo-on < *-s-en*	allative	*katto-lle < *-l-le-k*

(10) Hungarian:

inessive	*ház-ban*	elative	*ház-ból*
superessive	*asztal-on*	delative	*asztal-ról*
illative	*ház-ba*	sublative	*asztal-ra*

The above examples point toward coalescence of two formerly distinct suffixes, no longer analyzable as separate affixes. So Beard's theory appears to apply to Finnish: note however that there is no historical evidence for it in the case of prepositions in the Indo-European languages. Indeed, in many of the Indo-European languages cases have either disappeared (as in Romance) or they have been reduced (as in Germanic), but there are no examples of coalescence with prepositions. In particular, in languages such

as Latin and Romance, case variation became redundant inside preposi-tional phrases, and then disappeared so that only the prepositions were left, as I will show in section 3.3.2.

Even in the Slavic languages, in which cases have a wide semantic use, they cannot occur freely and express the same spatial relation expressed by prepositional phrases.[16] With respect to the examples in (7), one must re-mark that (a) neither the instrumental nor the accusative could express the same local function outside prepositional phrases, and (b) with most prepo-sitions that allow case variation, the opposition rest/motion is marked by the locative and the accusative, the occurrence of the instrumental with rest being conditioned by the occurrence of the some specific prepositions.

Maybe owing to their position, since they are not adjacent to case end-ings,[17] the Indo-European adpositions display little tendency toward coa-lescing with their complement, and even at advanced stages of grammati-calization they mostly remain adpositions, rather than become affixes, while the number of cases that can appear within prepositional phrases tends to be reduced.[18]

3.3. Homophones

3.3.1. Adverbs or adpositions

As already mentioned in section 3.1, the same element can behave, within the same language and at the same time, as an adverb or as an adposition. Let us consider the following set of Italian examples:

(11) a. *Vado dentro.*
          'I go inside.'
      b. *Vado dentro alla stanza.*
          'I go into the room.'
      c. *Vado dentro, nella stanza.*
          'I go inside, in the room.'
      d. *Vado all'interno della stanza.*
          'I go in the inside of the room.'

In (11a) *dentro* is an adverb, but in (11b) it is a preposition, because it de-termines the choice of the other preposition *a* (one could not replace (11b) with *vado alla stanza*). In (11c) *dentro* is again an adverb, modified by an

apposition, the PP *nella* (*in* + det.) *stanza*, which expresses the same se-mantic relation as *dentro*. Diachronically, this is the earliest type of con-struction, and it was already attested in Latin, where the adverb *intro* mostly occurred alone:

(12) *ferrum intro clam in cubiculum ferre*
          'bring the weapon secretly inside, in the bed room' (*b. Afr.*)

Otherwise, the Italian adverb could have a modifier with the preposition *di* that expresses nominal dependency. In Italian this mostly happens with adverbs of recent nominal origin; *dentro* takes adnominal modifiers with *di* only to a limited extent (mostly with pronouns), but see *interno* in (11d), which still has nominal nature.

I mentioned the case of *dentro* because, to my knowledge, nobody has ever suggested that *dentro* in (11a) and (11b) represents two different but homophonous words. However, this would be the consequence of setting up rigid borders between lexical categories. Of course, one cannot rule out the possibility that homophones exist (and in fact, languages have plenty of homophones), but there should be some positive evidence that two items with related (or identical) meanings are indeed different lexical items, on account of partly different syntactic behavior; note further that, in the case of prepositions with case variation, the two putative lexical items do not even belong to different word classes.

In the sections 3.3.2 and 3.3.3 I will discuss an example in which dia-chronic data do not support the hypothesis of homophony, and one in which they could be taken as pointing indeed toward creation of homo-phones.

3.3.2. Adpositions with different cases and the same meaning: Latin

In Latin, there are three prepositions, *in* 'in', *sub* 'under', and *super* 'on', 'over', that allow case variation. If they were homophones, one would not expect them to have merged after the loss of morphological case. But in-deed they have: in Italian, for example, one can say *salto sul tavolo* and mean either the configuration in Figure 2 (a) or the configuration in Figure 2 (b).
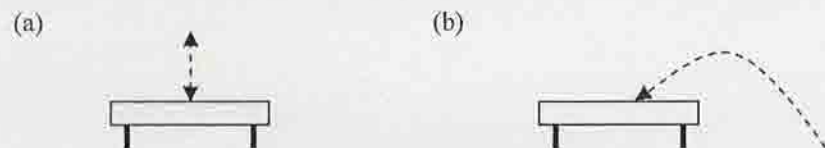
(a)   (b)

Figure 2. Salto sul tavolo 'I jump on the table'

In Latin the configuration in Figure 2 (a) would require *super* plus an NP in the ablative, while the configuration in Figure 2 (b) would require *super* and an NP in the accusative: but the diachrony of this preposition does not point in the direction of two homophonous and separate lexical items, as it would if, after the disappearance of cases, the prepositions had split into two different outcomes, or if it had lost one of the two meanings.[19]

3.3.3. Adpositions with different cases and different meanings: Greek

The latter change is possibly attested in Greek. In Luraghi (2005) I suggested that the preposition *metá* in Classical Greek might have represented two different homophonous lexemes for the speakers, on account of its meaning ('with' with the genitive and 'after' with the accusative, see example (13a)) and because the data from its diachrony point in this direction. In Modern Greek, all prepositions take the accusative; Classical Greek *metá* corresponds to two different prepositions, *me* 'with', and *metá* 'after', as shown in (13b):

(13) a.   *metà Sōkrátous* 'with Socrates' (gen.); *metà taûta* 'after these events' (acc.)
      b.   *me ton patéra* 'with (one's) father'; *metá tis eniá* 'after nine o'clock'

The origin of the semantic split between *metá* with the genitive and *metá* with the accusative can be traced back to Homeric Greek, in which the partitive genitive started to be used with prepositions (see Luraghi 2003: 244–255, and 2005). In Homer, the meaning of *metá* was 'among', and the accusative occurred with continuous landmarks, while the genitive occurred with discrete ones (see endnote 23 for this terminology). When the spatial meaning of the preposition was lost, semantic motivation for case variation also disappeared, and the two different meanings associated with case variation may have led to the creation of homophones. I will come

back to the function of the partitive genitive with prepositions in section 5, where some examples will be discussed.

3.3.4. The categorial status of adpositions

As remarked in section 3.1, homophony has not only been invoked in order to explain case variation with adpositons, but in order to motivate double or triple syntactic behavior of certain adpositions that can also function as adverbs or preverbs (verb particles). Such a solution it typical of the tendency to postulate pre-existing categories, rather than set up categories empirically, based on the actual linguistic data (see Haspelmath 2007). Indeed, an historical development such as the one outlined above for Latin *in* points in the oposite direction, i.e. that there has always been a single lexeme *in*, so one should look for a different solution. Similarly, the evidence of Italian *dentro* and other former nouns that have undergone grammaticalization and have become adverbs and adpositions indicates that there must be a stage at which the same item displays at least double behavior: grammaticalization is an ongoingo, continuous process, and does not procede by jumps (see section 4).

Historical evidence and the existence of grammaticalization processes itself show that word classes are structured as prototypical categories. Prototypical categories have no clear cut boundaries between each other, but are separated by a continuum, on which items are located that display features of both categories. Such items may have as their typical feature multicategorial status, as do the Indo-European preverbs, or they can most often share the behavior of one of two bordering categories, and only occasionally display non-prototypical function, as Italian *dentro* (most often and adverb, only occasionally used as preposition).

4.   Synchrony and diachrony of government

Diachronically the occurrence of different cases with the same adposition is easily explained by keeping in mind that government often derives from modification. In a diachronic perspective, one can see a motivation for the occurrence of different cases with the same adposition: NPs start out as adpositions of adverbs, develop into modifiers and then into complements.

At an advanced stage of grammaticalization the case marker on the NP only indicates that the NP is the complement of a preposition:

> ... the more a case affix is grammaticalized, the more it comes to express ... just these syntactic relations. This is the relation of the nominative to the subject relation, ... and of the oblique grammatical cases to the preposition-complement relation. The attraction of an NP into the valence of its controller, so that it ceases to be a modifier, and the grammaticalization of the case suffixes are thus two processes that condition each other. ... Throughout the history of the Latin language, we observe a steadily increasing presence of government. The first step in this direction was the subordination of an NP to the adverb that accompanied it, and thus the creation of prepositional government. (Lehmann 1985b: 95f.)

Lehmann summarizes the differences between adverbs and adpositions in Table 1.

Table 1.   Dependents of adverbs and adpositions (Lehmann 1999)

	adverb	adposition
(a) dependency relation	modified by dependent	governs dependent
(b) dependent	optional	obligatory
(c) case relator on dependent	freely chosen according to meaning	uniquely determined by superordinate element

In the light of the above criteria, an interesting example of the development from body part noun to adverb is the English word *ahead*, which can occur either alone, or with a dependent *of* phrase. *Ahead* represents a less grammaticalized stage than *in front of*, discussed in section 2, because its dependent, being optional to a large extent, can be viewed as a modifier (from this point of view the phrase headed by *ahead* is endocentric), but, according to criterion (c) above, it is a complement, since *ahead* uniquely determines the occurrence of the preposition *of* in the dependent phrase. So one can say that *ahead* constitutes a counterpart of German *in*, and governs its dependent according to criterion (b), but raises problems if one considers it in the light of criterion (c).

So far I have described a situation where either property (b) or property (c) holds. In order to build a scale by which we can say that we have instances of more or less prototypical government we need an independent definition of government. Such definition can be given in purely syntactic terms. Moravcsik (1995: 708) defines government as follows:

(14)   Constituent A governs constituent B if the syntactic function of B depends on A.

The syntactic function of the noun phrases *der Stadt* and *die Stadt* in (1a) and (1b) is determined by the preposition *in*.[20] The syntactic function of the two NP's is: complement of a preposition; as such they cannot occur alone (as they could do if their relation to their head were e.g. appositional, as in Figure 1) in sentences such as (15a-b). The verb *fahren* cannot take an NP, but only a PP.

(15)   a.   **Ich fahre der Stadt.*
       b.   **Ich fahre die Stadt.*

With PPs that are syntactically adverbials, the case is slightly different following this criterion. Let us examine an example with *ahead*. As we have already seen, *ahead* requires its dependent to be marked by the preposition *of*. Even when a PP with *of* cannot substitute a PP with *ahead* (+ *of* ...), if the expression is an adverbial we can find another PP, as in:

(16)   a.   *Mary came ahead of time.*
       b.   **Mary came of time.*
       c.   *Mary came on time.*[21]

On a scale of prototypicality prepositions which meet all the above criteria (as e.g. German *zu*, which only takes the dative) score the highest; a preposition as German *in* constitutes a case of less prototypical government, while the relation between *ahead* and its dependent in (14), while also displaying a feature of government, is closer to modification.

5.   A case which is not (only) a case: the partitive

5.1. The Ancient Greek genitive with prepositions

In this section, I will briefly summarize some aspects of case variation with Ancient Greek prepositions,[22] especially in connection with the partitive genitive. Let us start by reviewing some well known facts about Greek.

Ancient Greek had five cases: nominative, vocative, accusative, dative, and genitive. Leaving aside the nominative and the vocative, all other cases could occur with prepositions:

(17) Prepositions
  a. with one case: *antí, apó, ek, pró* (genitive), *eis* (accusative), *en, sún* (dative)
  b. with two cases: *diá, katá, hupér* (genitive and accusative)
  c. with three cases: *amphí, aná, epí, metá, pará, prós, hupó*

Let us now focus on the function of the genitive. In the other ancient Indo-European languages, the genitive could occur with adpositions limited to cases in which it originated from a modifier of an adverb, as in (4) from Old Indic, or when it had merged with the ablative as in Slavic. In Ancient Greek, the genitive partly replaced the Indo-European ablative, which had disappeared on account of case syncretism:[23]

(18) a. *parà nēòs* 'from the ship' (gen.)
  b. *parà nēusì* 'near the ships' (dat.)

Example (18) is parallel to Old Indic (3): Greek lost both the ablative and the locative, which merged with the genitive and the dative.

Most frequently, however, the Greek prepositional genitive does not represent the ablative. Consider the following examples:

(19) a. *stê   d' ár' hupèr kephalês*
      stay:AOR.3SG PCL then over head:GEN
      'he took his stand above (his) head' (*Il.* 2.20 and *passim*)
  b. *met' állōn   léxo*
      among INDEF.GEN.PL.M lie:IMP.AOR.MID.2SG
      hetaírōn
      comrade.M:GEN.PL
      'lie with the rest of your comrades' (*Od.* 10.320)
  c. *mé ... è   halòs è   epì gês*
      not   either see:GEN either on earth:GEN
      pêma   pathóntes
      pain:NOM/ACC.PL suffer:PART.AOR.NOM.PL
      'that you do not suffer evil anywhere on sea or on earth' (*Od.* 12.27)

In the above example we find a number of prepositional phrases with the genitive: *hupèr kephalês* 'over (his) head', *met'állōn hetaírōn* 'with the other comrades', *epì gês* 'on earth'. In such occurrences, the genitive does not add ablative meaning to the preposition, as it does with *pará* in (18), and the function of the prepositional phrases is rather to express locative. Note that the genitive alone can function as a locative in Homer, as shown by the occurrence of *halós* 'on sea' in example (19c), in which the semantic role is not even indicated by the verb (*halós* is an adverbial).

The above occurrences can be understood by carefully contrasting similar passages in which the accusative occurs instead of the genitive. Often the meaning of the prepositional phrase is the same, and case variation points toward a different conceptualization of the landmark. Compare (19b) with (20):

(20) *toîsi   dè   thumòn   enì stéthessin*
      DEM.DAT.PL.M PCL soul:ACC in   breast:DAT.PL
      órine   pâsi   metà plēthún
      stir:AOR.3SG all:DAT.PL.M among crowd:ACC
      'he moved the soul of everyone in the crowd' (*Il.* 2.142–143)

As remarked in section 3.3.3, the genitive is used for discrete landmarks (in (19b) a plural count noun), while the accusative is used for continuous ones (in (20) a collective noun).[24] The nature of the landmark also determines the type of trajectory along which a trajector can move within the landmark, as shown in:

(21) *autàr ho   bê   dià*
      but   DEM.NOM.M   walk:AOR.3SG through
      dôma   polútlas
      hall:NOM/ACC.PL   much.enduring:NOM.SG
      dîos   Odusseùs.   óphr' híket'
      goodly:NOM O:NOM   until reach:AOR.3SG.MID
      Arétēn te   kaì Alkínoon   basilêa
      A:ACC   and and A:ACC   king:ACC
      'but the much-enduring goodly Odysseus went about in the hall ... until he came to Arete and to Alcinous the king' (*Od.* 7.139–141)

(22) *bàn   d'   iénai   protérō   dià*
      walk:AOR.3PL PCL go:INF.PRS forwards   through

dōmatos,	*hêos*	*híkonto*	*Tēlémakhon*
hall:GEN	until	reach:AOR.3PL.MID	T:ACC

'they walked through the hall, until they reached Telemacus' (*Od.* 15.109–110)

Motion denoted by *dià dôma* (acc.) in (21) must be understood as wandering around and changing direction, while motion denoted by *dià dōmatos* (gen.) in (22) follows a straight path across the landmark.[25] In a discrete landmark, a trajector can move along a trajectory which can be traced down, and has a precise direction (unidirectional path); inside a continuous landmark, instead, a trajector can move around, but its motion is random (multidirectional path).

5.2. Partitivity and definiteness

5.2.1. *Partitivity and definiteness in Finnish and in Basque*

As well known, the partitive occurs as a separate case in a number of Finno-Ugric languages, for example in Finnish, where it is used as alternative to the nominative for partitive subjects (mostly with presentative verbs) and to the accusative for partitive objects. The occurrence of the partitive has several implications regarding some features of the referent: in the Balto-Finnish languages it normally denotes affectedness and definiteness, as in *kirja-t* 'the books' (nom.) vs. *kirjo-ja* 'books', 'some books' (part.).[26]

Basque, too, has a partitive case, which can be used for subjects of intransitive verbs or for patients of ergative verbs. Its meaning is similar to the meaning of the Finnish partitive, even if Basque shows a bigger connection of partitive with negation (see Laka 1993).

Both in Finnish and in Basque, the partitive is morphologically realized as a case marker, besides, historical evidence shows that the Finnish partitive derives from the ablative case. For these reasons, it is considered a case in reference grammars. However, at a closer look, the fact that the partitive can be used for both subjects and objects indicates that it adds some type of information that is not completely coherent with the category case. Indeed, if we assume the function of morphological case to be "marking dependent nouns for the type of relationship they bear to their heads"

(Blake 1994: 1) the partitive not only does not fulfill this function, but it also partly hides the specific relation.

The peculiar features of the partitive have led several scholars to suggest that it should not be considered a case, but rather a determinative. For example, Laka (1993: 158) suggests that "what is referred to as 'partitive case' in Basque is a polar determiner, much like English *any*", and further notes that the partitive is in complementary distribution with all other determiners. A similar suggestion, in a GB theoretical framework, is formulated in Asbury (2006) with regard to the Finnish partitive.

Interestingly, the Finnish partitive can also be used with adpositions. With some of them, it alternates with the genitive. The semantic difference is similar to the difference between the accusative and the partitive genitive in Homeric Greek:

(23) a. | *lelu-t* | *o-vat* | *keskellä* | *lattia-a.* |
|---|---|---|---|
| toy-PL.NOM | be.PRS-3PL | in.the.middle.of | floor-PART |

'The toys are in the middle of/all over the floor.'

b. | *lelu-t* | *o-vat* | *lattia-n* | *keskellä.* |
|---|---|---|---|
| toy-PL.NOM | be.PRS-3PL | floor-GEN | in.the.middle.of |

'The toys are in the middle of (lit: at the centre of) the floor.' (from Lestrade 2005)

The difference borne about by case alternation does not concern the semantic role of the adpositional phrase. Much in the same way as in (21) and (22), the difference rather lies in the specificity of the relation between the trajector and the landmark. In Finnish, the partitive, having an indefinite value, triggers a less definite meaning of the preposition.

5.2.2. *Partitivity and definiteness in Romance*

Other languages with grammaticalized means for partitive also show that partitive does not have the same function of grammatical case (or of its equivalents, e.g. adpositions). In French, for example, we find a highly grammaticalized partitive article, built with the preposition *de*, with a distribution which is different from the distribution of other primary prepositions:

(24) *je suis venu avec les amis / je suis venu avec des amis*
      'I came with (lit.: the) friends / I came with some friends'.

The last example, where *des* co-occurs with the preposition *avec*, demonstrates change of lexical category. Indeed, French *de* is generally considered a determiner, even if it derives from the preposition that has taken over the functions of the genitive. Interestingly, the preposition *de* in Latin means 'from', i.e. it has an ablative meaning: the source for the partitive determiner in French is the same as the source for the partitive 'case' in Finnish.

5.2.3. Partitivity and definiteness in Homeric Greek

Much in the same way, the Greek genitive in examples (19b-c), and (22) bears a type of information (again, partitivity) which goes beyond the information normally conveyed by morphological case. This construction is normal in French, where the partitive is highly grammaticalized, and very widespread in Italian, where it is gaining ground even in the more conservative written language. It shows that a partitive construction does not functionally correspond to a morphological case.

If we now go back to the Greek examples, and in particular to example (19c), one can remark with Ruijgh "...ou bien quelque part dans la mer ou bien quelque part sur la terre" "...*epì gês*, originellement 'quelque part sue la terre', a fini par obtenir le sens moins spécifique de 'sur la terre'", Ruijgh (1994: 148). In other words, in the beginning the prepositional partitive did not specify a semantic role as the other cases did (examples (3) and (18)): the locative meaning of the prepositional phrase was expressed by the preposition, and the genitive expressed indefiniteness, as the partitive can do in Finnish.[27]

Limited to the accusative and the partitive genitive, case variation as described in this section should not be viewed as a problem for the notion of government: the prepositions involved do in fact govern their dependents in the strictest sense, since case variation is connected with definiteness.

The partitive genitive in the occurrences shown in this section does not fulfill a function homogeneous with the functions of the category case. In this sense, the partitive is not a real case. Note that case variation involving the partitive ends up being similar to variation between the genitive and the dative with German *entlang* (section 2), in the sense that in both instances morphological case fulfills a function that is not of the type one would expect. The analogy ends here, because in the case of *entlang* case varia-

tion points toward different stylistic registers, while in the case of the Greek partitive it expresses different values of definiteness.

One may wonder why the partitive function of the genitive in Greek did not become fully grammaticalized, as with the Balto-Finnish partitive. The problem is that, contrary to Finnish, Greek did not have a separate partitive; furthermore, the genitive had also taken over the function of the ablative case (as in example (18)). Possibly, this was the reason why the incipient extension of the partitive to prepositional phrases did not develop further in Greek. After the partitive meaning of the genitive became no longer relevant with prepositions, the difference between (19b) and (20) and (21) and (22) was no longer felt, the local meaning was lost at least in part, and the resulting situation was the one described in section 3.3.3 for Classical Greek, in which the preposition *metá* in association with different cases acquired two meanings that could not easily be thought of as manifestations of polysemy.

6. Summary and conclusions

In my paper I have addressed a number of issues connected with the use of cases with adpositions, and, more specifically, case variation with the same preposition. In the first part of the paper, I have discussed the notion of government, showing that in languages where the same preposiiton takes two (or more) cases it is useful to view government as a prototypical notion, which defines a continuum between government and modification. By referring to such a continuum one can also gain insight on the problem of the categorial status of words that can be used both as adpositions and as adverbs, without having to resort to homophones.

In the second part of the paper, I have shown that case variation must not always be connected with variation in semantic roles. In particular, describing the use of the partitive genitive as prepositional case in Ancient Greek, I have shown that the fact that there is a choice between the accusative and the genitive does not mean that prepositions do not govern their dependents.

The occurrence of the partitive with prepositions in Greek raises the interesting question of how wide is the variety of functions that morphological case can fulfill within prepositional phrases, apart from the function of expression semantic roles. It can be added that case alternation with adpositions in Finnish also involves the partitive: this is an issue that would certainly be worth pursuing further.[28]

Notes

1. German prepositions that allow case variation are sometimes called 'two-way' prepositions, see e.g. Langacker (1999). Case variation with German prepositions is extensively treated in Di Meola (2000). Various theories on this issue are discussed in Zwarts (2006), which also contains extensive references. I will come back to this type of case variation below, endnote 29.

2. Case variation with adpositions is also known from non-Indo-European languages, but I will limit my discussion to (some) Indo-European languages in this paper (but see section 6 on Finnish).

3. For a more detailed account of the development of adpositions, see Lehmann (1995: 74–79), with examples of relational nouns from various genetically unrelated languages.

4. In Spanish we find the adverb *enfrente* from *en* + *frente*, that can occur alone or with a PP with *de*, and *frente*, that can still be used as body part, or take a dependent with the preposition *a*. In Italian the word *fronte* is grammaticalized in the adverb *difronte*, that can either occur alone or with a dependent PP with *a*; in the latter case it behaves as a preposition, rather than a noun, see below, the discussion of *dentro* in section 3.3.1.

5. In general, the Indo-European primary preposition (i.e. those that also function as preverbs, see section 3.1) cannot be traced back to body part nouns (an exception is **h₂ent-* 'in front of'). On various origins of German prepositions, see Lehmann (1998).

6. Or it can occur alone only in elliptical expressions, cf. Lehmann (1995: 76).

7. See above, endnote 1 for reference on this matter; I will briefly come back to it below, endnote 29.

8. These two theories do not exclude each other: it can be assumed that two homophonous adpositions are parts of discontinuous morphemes involving as their other part two different case endings.

9. This position is argued for in Abraham (2001).

10. Traditionally it is said that adpositions have been 'added' to cases when the latter were no longer able to express a certain 'concrete' meaning. This interpretation implies the existence of a stage at which Proto-Indo-European had no adpositions, because cases alone could express all semantic functions. That such a stage can be reconstructed is questionable, as pointed out by various scholars (see Dunkel 1990). Hittite, the oldest attested Indo-European languages, is sometimes said to have lacked adpositions at its most ancient stage. I have argued elsewhere that this does not represent the original Indo-European situation, see Luraghi (2001).

11. On these and other Vedic adpositions, see Delbrück (1893) and Macdonell (1916: 208–210).

12. Adpositions can be pre- or postposed in Vedic; in Classical Sanskrit they are mostly postposed.

13. See Brugman (1988) for a discussion of the categorial status of *over*.

14. Kuryłowicz (1964:176) also outlines a development of the relation between prepositions and cases: "1. The whole syntactic group (preposition + noun) determines the verb, the preposition representing either a reinforcement or a specification of the ending of the noun. 2. If more than one case-form occurs with the same preposition *the ending of the case-form functions as a determinant of the preposition*, thus rendering its value precise. The shift from 1. to 2. is the crucial phenomenon". How this shift actually happens, and what exactly is the structure of the group preposition + NP with case at the two different stages is not further explained; apparently, at stage (1) cases have a meaning within PP's that is similar to the meaning that they can express alone, while at stage (2) the difference in meaning appears to hold only within the PP. Unfortunately, in the discussion that follows the above quote, Kuryłowicz (1964: 176–178) mostly gives examples of prepositions at stage (1).

15. I owe this observation to Ch. Lehmann.

16. In other words, the relation between cases and prepositions is not modification, as it is in examples (3) and (4) from Old Indic.

17. This partly depends on the fact that in most Indo-European languages we find prepositions, rather than postpositions, and partly depends on free word order even in the languages that mostly have postpositions.

18. The Indo-European languages have sporadic examples of coalescence of a postposition with an inflectional ending; the only systematic case of creation of new case morphemes out of postposition is Tocharian, see Krause and Werner (1960).

19. See Luraghi (1989) for more examples and discussion.

20. A different position can be found in Abraham (2001).

21. In (15a-b) the substitution of the SN in the dative or accusative with a SN in another case, say the genitive, would not result in a grammatical structure.

22. From now on I use the word 'preposition', rather than 'adposition', with reference to Greek, because these items virtually all ended up being preposed in Classical Greek, even if postpositional usage was frequent in Homeric Greek.

23. See Luraghi (1987) and (2003).

24. I use the terms 'continuous' and 'discrete' as they are used for example in Talmy (2000: 21–96) to refer to the 'state of Dividedness' of entities. Discrete entities are formed by a collection of separate items (they are "conceptualized as having breaks" according to Talmy, 2000: 55), while continuous ones do not display an analyzable internal structure. Nominal number can be a hint to the way in which we conceive of the internal structure on an entity: according to Langacker (1987: 294) "the grammatical differences between plurals and

underived mass nouns reflect the greater individuation of plurals wrought by their compositionality".

25. See Luraghi (2003). Apparently, in Homer a free genitive with local reference had more chances of being taken as a locative, than as an ablative. Indeed, the partitive genitive could occur in an array of functions, including direct object, subject, adverbial of time, and locative adverbial as in (19c) (see Luraghi 2003: 60 for the relevant examples).

26. See Sulkala and Karjalainen (1992) for the use of the partitive in Finnish; on definiteness and the Balto-Finnish partitive see further Barbera (1999).

27. With this meaning the genitive built an opposition with the accusative, which expressed complete affectedness: the opposition was based on definiteness, and not on semantic roles.

28. Various scholars have pointed out that variation between the dative and the accusative in German cannot simply be explained by the opposition between locative and allative, and have argued that in this language, too, case variation provides information as to the way in which the landmark is conceived, as an unbounded entity which contains the trajector (dative) or as a bounded entity crossed by a trajectory (accusative; see among others Smith 1995). Note however that German does not provide cases of complete identity of semantic roles, as does Greek, for example in (22) and (23a). Apparently, case variation in German provides both types of information at the same time, i.e. semantic role and boundedness of the landmark.

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On the form of complex predicates: toward demystifying serial verbs
Masayoshi Shibatani

1. Introduction[*]

As the recent volume edited by Aikhenvald and Dixon (2006) indicates, interest in verb serialization or serial verb constructions (SVCs hereafter) persists. Indeed, the question of how serial verbs differ from other types of complex predicates such as converbal complex predicates and verb compounds, as well as other multi-verb constructions like coordination and subordination, remains one of the outstanding questions in both formal and typological studies. This paper, by critically examining the widely held current characterizations of SVCs, attempts to remove some of the misconceptions surrounding serial verbs. In particular, we focus on the similarities between serial verbs and converbal complex predicates containing a non-finite marker, and argue that they are not distinct types of complex predicate, contrary to the claims made in the recent literature on SVCs. While space limitation prevents us from developing it further, our discussion of SVCs, in particular the functional aspect of the predication of these constructions, benefits greatly from some of Christian Lehmann's earlier work (e.g., Lehmann 1989) on the typology of clause linkage. I thus find it fitting that I contribute this paper as a token of the great admiration that I hold with regard to Christian's many seminal works in modern linguistic typology.

As seen in the following characterization of SVCs by Aikhenvald (2006), the current definitions of SVCs such as Foley and Olsen (1985), Bisang (1995), and Bril (2004) typically refer to the four defining properties summarized in (1) below:

> [An SVC] is a sequence of verbs which act together as a single predicate, without any overt marker of coordination, subordination, or syntactic dependency of any other sort. Serial verb constructions describe what is conceptualized as a single event. They are monoclausal...SVCs may also share core and other arguments. Each component of an SVC must be able to occur on its own right. (Aikhenvald 2006: 1)