Additional accusatives in Latin and Ancient Greek: Arguments against arguments

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ABSTRACT.   In Latin and Ancient Greek we find accusatives in places where one would not expect them: as complements of intransitive verbs and adjectives and as second complements of transitive verbs. In this paper we argue on the basis of a variety of evidence that these additional accusatives should not be analyzed as direct objects, but rather as predicate modifiers. In this way we can maintain the basic distinction between intransitive and transitive verbs.[1]

1   Introduction

While transitive predicates are commonly characterized as taking two direct arguments, that is both a subject and a direct object, intransitive predicates are defined as taking only a subject argument. In this paper we discuss data from Latin and Ancient Greek that at first sight seem to militate against the distinction made above.

Both Latin and Ancient Greek are so-called nominative-accusative languages, which means that the subject of a transitive predicate is marked with nominative case and the object with accusative case. However, we also find that so-called intransitive predicates, which normally only take a subject argument, can occur with an accusative marked complement. Consider the example with Latin *triumphare* 'to triumph' in (1):

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(1) *triumphavit   triumphos   novem*
     triumphed.3sg triumphs.acc nine
     "He triumphed nine triumphs."

Such intransitive predicates as *triumphare* normally only take oblique marked complements, i.e. complements marked with a genitive, dative, or ablative case or a preposition. There are, nevertheless, three groups of elements which can occur as accusative complements with intransitive predicates as in (1). First, the so-called *cognate accusatives*: complements of verbs whose head noun is the event or state nominalization of the verb and which often share their morphological root with the verb as in (1). Secondly, *neuter forms* of pronouns and substantivized adjectives.[2] Finally, the so-called *accusative of respect*, which is used to denote a thing in respect to which the predicate is limited. In the remainder of this paper we refer to these three groups of complements collectively as **additional accusatives**. We will see that these additional accusatives occur not only with intransitive predicates but also in other constructions in which accusative complements are otherwise judged infelicitous. This raises the question in which respect these additional accusatives are different from normal direct complements bearing accusative case. In the remainder of this paper we take up this question. We argue that this different behaviour of additional accusatives is due to the fact that they are predicate modifiers instead of normal direct objects. This allows us to maintain the basic distinction between intransitive and transitive verbs without modifications.

In the next section we discuss the distribution of the additional accusatives in both Latin and Ancient Greek. This data section is followed by section 3 in which we argue that additional accusatives are not to be considered normal arguments of the predicate but rather predicate modifiers. Section 4 reviews evidence in support of this analysis. Finally, in section 5 we set the first steps toward a semantics of additional accusatives.

2   The distribution of additional accusatives

In this section we will see that that additional accusatives occur not only with intransitive verbs, but also as second complements with transitive verbs and as complements of adjectives.

2.1   Additional accusatives with intransitive verbs

All three types of additional accusatives can occur with intransitive predicates which normally only take an oblique complement. We already saw an example of a cognate accusative with the intransitive verb *triumphare* in (1) above. In (2) and (3) similar examples are given of the verb *pugnare*:

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[2]Historically, the second class developed from the first class. Starting with a combination of adjective and cognate noun, the noun was dropped leaving the bare adjective. At a later stage this bare adjective was put in its neuter accusative form.

(2)   *in hostem   pugnaverunt*
      in enemy.ACC fight.PERF.3PL
      "They have fought against the enemy."   [Sallust, *Cat.*: IX,4]

(3)   *istam   pugnam   pugnabo*
      that.ACC battle.ACC fight.FUT.1SG
      "I will fight that battle."   [Plautus, *Pseud.*: 525]

As we can see in (2), *pugnare* normally takes a prepositional complement like *in hostem*.
Nevertheless, cognate accusatives can occur as complements as is shown in (3). Also neuter
forms of pronouns and substantivized adjectives are possible with intransitive verbs as is
shown in (4) for the Greek verb 'to live'.

(4)   *abiōton   dzēn*
      not.livable.MASC.SG.ACC live.INF
      "to live an unlivable life."   [Plato, *Leg.*: XI,926,B]

Here, *abiōton* is the accusative masculine form of the adjective *abiōtos* 'unlivable' and the
intransitive verb *dzēn* 'to live' normally takes no complement. Nevertheless, the configu-
ration in (4) with the accusative complement is perfectly well-formed.

   The last possible group of accusative complements with intransitive verbs is formed
by the use of the so-called accusative of respect. This use of the accusative is widespread
in Ancient Greek and is only found in Latin from the first century onwards under the
influence of Greek. An example of this accusative of respect is given in (5).

(5)   *hoūtos   ho   anthrōpos ton   daktulon algeī*
      this.NOM the.NOM man.NOM the.ACC finger.ACC feel.pain.3SG
      "With respect to his finger, this man has pain."   [Plato, *Res Publica*: 462d]

As noted in the previous section this accusative is used to denote a thing in respect to
which the predicate is limited. In the example in (5) this means that the man does not
have indeterminate pain but that his pain is restricted to his finger (note that the example
does not mean that this man hurt his finger).

2.2   Additional accusatives with transitive verbs

The first two types of additional accusatives are also found with transitive verbs. Normally,
these verbs take only one accusative marked direct object but they can take these additional
accusatives as a second complement. In Latin, the class of transitive verbs taking this
second accusative complement seems to be mainly restricted to verbs of *asking*, *teaching*,
and *concealing* (Woodcock 1959). The verb *rogare*, for instance, normally takes the person
asked as an accusative object and the thing asked for as an ablative marked complement
with an optional preposition *de*. It is, thus, ungrammatical to have both the person asked
and the thing asked for in the accusative case. It is, nevertheless, grammatical to have
two accusative marked complements in the case the thing asked for comes from the class

of additional accusatives. This is shown in (6) in which both the person asked (*me*) and the thing asked for (*id*) are in the accusative case.

(6)　*Quin*　*tu*　　*id*　　　　*me*　*rogas*
　　Why-not you.SG.NOM this.NTR.ACC I.ACC ask.2SG
　　"Why don't you ask me this (question)."　　　　　　[Plautus, *Bacchides*: 258]

Whereas the use of additional accusatives as second complements with transitive verbs in Latin is restricted to some verbs, in Ancient Greek it is much more widespread. Example (7) gives an example of the cognate accusative *plēgas* with the verb *tuptein*.

(7)　*ton*　*andra*　*tuptein*　*tas*　　*oligas*　　*plēgas*
　　the.ACC man.ACC strike　the.PL.ACC few.PL.ACC blow.PL.ACC
　　"to strike the man few blows."　　　　　　　　　[Antiphon, 4, γ.1]

2.3　Additional accusatives with adjectives

The last type of construction in which we find additional accusatives is with adjectives. This construction is most often found with the accusative of respect but we also find cognate accusatives with "adjectives of an intransitive character" (Smyth 1956). In (8), the three accusatives of respect *ōta*, *noun*, and *ommata* indicate the body parts with respect to which the person is blind.

(8)　*tuphlos*　　*ta*　　*t'*　*ōta*　　*ton*　*te*　*noun*　*ta*　　*t'*
　　blind.ADJ.NOM the.PL.ACC and ears.ACC the.ACC and mind.ACC the.PL.ACC and
　　ommat'　*ei*
　　eyes.ACC be.PRES.2SG
　　"You are blind in ears, mind, and eyes."　　　　　[Sophocles, *Oedipus Rex*: 371]

This example brings us at the end of the discussion of the distribution of additional accusatives.

3　Additional accusatives are predicate modifiers

As we have discussed in the previous section, additional accusatives are different from accusative marked direct objects in that they can occur in places in which normal direct objects cannot occur. The question arises why this should be the case. In the remainder of this paper we will develop an account of the three types of additional accusatives and their distribution.

In the linguistic literature the argument status of cognate objects, which constitute one of the types of additional accusatives, is much debated (see Pereltsvaig 1999a for references). On the one hand there are researchers who claim that cognate objects are arguments of their verbs (Massam 1990, Hale and Keyser 1993, Macfarland 1995). On the other hand, we find researchers who claim that cognate objects are more like adjuncts

(either as realizations of the event argument of the main predicate as in Mittwoch 1998, Moltmann 1989 or as adjuncts as in Jones 1988). The first account seems to hold for English whereas the second seems appropriate for Hebrew. As Pereltsvaig (1999a, 1999b) shows, for some languages it seems best to say that they have both argument and adjunct cognate objects, as in the case of Russian.

In this paper we claim that the occurrence of additional accusatives as discussed in the previous section, can be best accounted for when they are not treated as arguments of the verb but as predicate modifiers (similar to adverbs). This view is closely related to the second position taken in the literature. On our account, instead of being taken by a predicate as a direct semantic argument (as is the case with direct accusative objects) additional accusatives take the predicate as their argument and return a new predicate. By treating these additional accusatives not as semantic arguments of predicates we can straightforwardly account for the fact that they appear in places where direct objects are not allowed. Additionally, we can maintain the basic distinction between intransitive and transitive verbs without modifications.

4 Reviewing the evidence

In this section we consider evidence for our analysis to treat additional accusatives like adverbials and not like direct objects. In the first part we present evidence in favour of our analysis. In the second part we show that evidence from passivization and case marking, normally thought to be important tests for argumenthood, is inconclusive when applied to Latin and Greek additional accusatives.

4.1 Supporting evidence

Historical development

The first piece of evidence to treat these additional accusatives as predicate modifiers is historical. All three types of additional accusatives developed into real adverbs (Bornemann and Risch 1978, Kühner and Gerth 1963) for which an analysis as predicate modifier is straightforward.[3] Example (9) shows the adverb *multum*, which developed from the neuter accusative form of the adjective *multus* ('much').

(9) *multum te   amamus*
     much   you.SG.ACC love.1PL
     "We love you a lot."   [Cicero, *Att.*: 1.1.5.]

Distribution

The most straightforward evidence for treating these additional accusatives different from direct objects comes from their distribution. Firstly, as we discussed extensively in section

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[3]In accordance with footnote 1, type i developed through type ii into adverbs.

2, these additional accusatives can occur in positions in which normal direct objects are not allowed. Even more, this also holds the other way around: not only can additional accusatives occur in positions in which normal direct objects cannot occur, it also seems that additional accusatives *cannot* fill the argument position reserved for the normal direct object. If this were possible we would expect to find sentences in which a transitive verb occurs only with an additional accusative and thus no normal direct object is present (e.g. when we would leave out *ton andra* ('the man') in (7) above). Examples of this kind are – as far as we are aware – not attested.

Secondly, with intransitive verbs these additional accusatives alternate with oblique phrases (cf. (2) vs. (3)) which are traditionally analyzed as being of a modificational type. In our analysis we can keep these formally different complements semantically identical.

Thirdly, when we compare these additional accusatives in Latin and Ancient Greek with cognate objects in English we find a clear difference. In English, cognate object formation seems to be limited to the class of unergative verbs (see Kuno and Takami 2004 for discussion though). In Latin and Ancient Greek the use is much more widespread (although less so in Latin than in Greek; Kühner and Gerth 1963, Kühner and Stegmann 1912) and seems possible with virtually every intransitive verb, even with unaccusatives, cf. (10).

(10)   *hē*   *polis*   *ouk an epese*   *to*   *toiouton ptōma*
       the.NOM city.NOM NEG PRT fall.AOR.3SG the.ACC such.ACC fall.ACC
       "The city would not have fallen such a fall."   [Plato, *Lach.*: 181,B]

The distribution in English has led many researchers to the conclusion that in this language cognate objects should be treated as arguments of the verbs they co-occur with (Massam 1990, Hale and Keyser 1993). With unaccusative and transitive verbs the (underlying) object position is already occupied and therefore no position is left for a cognate object, this in contrast to unergative verbs. The different distribution found in Latin and Ancient Greek suggests that in these languages additional accusatives should be treated different from direct objects. If we would treat the additional accusatives as direct objects we would have a problem explaining the occurrence of these objects with transitive and unaccusative verbs.

Stacking

For the accusative of respect, evidence to treat them as being of a modificational type comes from the fact that they can be stacked. In (11) we find two accusatives of respect with the adjective *sophoi* 'wise'. In this construction first the accusative *ti* 'something' and subsequently *ouden* 'nothing' is added to the predicate *sophoi*.

(11)   *hoi*   *brotoi*   *ouden*   *ti*   *sophoi*
       the.NOM mortal.ADJ.PL.NOM nothing.ACC something.ACC smart.ADJ.PL.NOM
       eisin
       be.3pl

"The mortals are not at all smart in anything." [Eur., *Med.*: 190-191]

In our analysis this is handled straightforwardly: since these accusatives take a predicate as their argument returning a new predicate we predict that they can be applied one after another.

The semantic contribution of additional accusatives

At first sight, an additional accusative construction like *laugh a laugh* without any further modification sounds tautological: the noun does not add any new information. This tautological nature might be the reason why we in fact hardly ever find an unmodified cognate accusative. Instead cognate accusatives are almost always modified. The first way in which they can be modified is by means of an adjective or a demonstrative. In the Latin example in (12) the cognate noun *vitam* is modified by the adjective *beatam*.

(12)   *beatam   vitam   vivere*
        happy.ACC life.ACC live.INF
        "To live a happy life."   [Quint., 5,14,13]

In this example 'happy' modifies the predicate in that it attributes to the life event that it is also a happy event. In this way it is similar to the adverbial use of 'happy' in the sentence 'to live happily' (setting aspectual differences aside).

Alternatively, the cognate noun does not necessarily have to be modified by an adjective or the like when it is already modified by means of its lexical meaning. In (13) we find the noun *aeiphugian* used as an unmodified additional accusative with the verb *pheugō*. Since the lexical meaning of the noun is narrower than the lexical meaning of the verb, i.e., the noun denotes a subset events of the verb denotation, it is not necessary to modify the noun with an adjective to get an informative statement.

(13)   *pheugetō aeiphugian*
        exile.IMP eternal.exile.ACC
        "Let he go in an eternal exile."   [Plato, *Leg.*: IX,871,D]

Again we could say that the cognate noun has a meaning similar to an adverbial in that it modifies the event. Given the fact that cognate accusatives always occur modified one way or the other, we conclude, following Mittwoch (1998), that cognate accusatives can best be viewed as expressions semantically related to (manner) adverbs, and furthermore that they can be best analyzed along similar ways, viz. as a predicate modifier. Cognate accusatives, like adverbs, modify the event described by the predicate and interestingly are often used when we do not have a lexical adverb at our disposal.

4.2 Inconclusive (counter) evidence

Passivization

In the literature on cognate objects passivization is often considered a good test for the argument status of such objects (see Pereltsvaig 1999b). If the object can occur as the subject of the corresponding passive construction, this is indicative for its argument status. For Latin and Ancient Greek the evidence from passivization is ambiguous and therefore inconclusive.

With transitive verbs only the real direct object can be passivized. The additional accusative shows up in the passive construction in the accusative as it does in the corresponding active construction. This is illustrated in (14), which is a passive (roughly) corresponding to the active construction in (7).

(14)   *ho*   *aner*   *tuptetai*   *pentēkonta plēgas*
        the.NOM man.NOM strike.PASS.3SG fifty.ACC   blow.PL.ACC
        "The man is beaten fifty blows."   [Aeschylus, 1.139]

However, when we look at additional accusatives with intransitive verbs, we find examples of these additional accusatives showing up as the nominative subject, cf. (15), although this is very exceptional according to Schneidawind (1886).

(15)   *haec*   *pugnata*   *pugna*   *est*
        this.NOM fight.PASS.PART battle.NOM is
        "This battle has been fought."   [Plautus, *Amph*: 253]

When we consider next the example in (16), the question arises whether passivization is a good test for argument status in these languages. In this example we see that the time expression *tertia aetas* shows up as the subject of the passive verb *vivitur* in the second part of the sentence even though it is surely is not an argument but rather a time adverbial. Therefore, we conclude that passivization cannot give us a definitive answer with respect to the argument status of additional accusatives.

(16)   *Annos*   *vixi*   *bis centrum, nunc tertia*   *vivitur*
        years.ACC live.ACT.1SG two hundred   now   third.SG.NOM live.PASS.3SG
        aetas
        century.SG.NOM
        "I have lived two hundred years, now my third century is being lived."   [Ovid, *Met*: 12,188]

Case

When discussing the phenomenon of additional accusatives we cannot bypass the issue of case marking. If these additional accusatives are not direct arguments of the verb, why do they receive accusative case, normally thought to be reserved for direct arguments? But what if we would argue the opposite, namely that additional accusatives *are* arguments of

the verb? In the latter case we would have to account for the fact that intransitive verbs which normally do not assign accusative case to their arguments (but rather have them in an oblique phrase), do assign accusative case to additional accusatives. Either way, the use of accusative case on these additional elements poses a problem. However, this is not a problem specific to our additional accusatives or to the analysis proposed. The view that accusative case is reserved exclusively for structural arguments of the verb has been proven untenable with respect to other phenomena as well. For instance, as Wechsler and Lee (1996) have shown, the domain of accusative case marking has to be widened in order to include the use of accusative case on adverbial expression of time and space (cf. languages such as Korean, German, Latin, Greek and Russian). How this can be theoretically implemented is a question we will not answer here, since it would drift us too far aside, but see Wechsler and Lee (1996) and Smith (1996) for suggestions.

5   Toward a semantics for additional accusatives

In the last two sections we adduced two ingredients needed in order to develop a satisfying analysis for additional accusatives in Latin and Ancient Greek. First of all, we claim that these accusatives are not real arguments of the predicate but rather are predicate modifiers. Secondly, for cognate accusatives we claim that in their function as modifiers they modify the event denoted by the verb.

To elaborate on the first ingredient, in contrast to direct arguments, predicate modifiers are not taken by a predicate as an argument but rather take the predicate as their argument and return a new predicate. Given that an intransitive verb is of type $\langle e, t \rangle$, the type of predicate modifiers has to be $\langle \langle e, t \rangle, \langle e, t \rangle \rangle$ in order to return a predicate of the same type. This modificational type is one of the three types of interpretation De Hoop (1992) argued object noun phrases can have (the others being referential e and quantificational $\langle \langle e, t \rangle, t \rangle$) in order to account for behaviour of (non-)argument noun phrases in a variety of languages. If we want to apply this type theoretic analysis to additional accusatives we, nevertheless, run into problems with cognate accusatives. As we have argued in section 4, cognate accusatives are modifiers of the event described by the predicate and in this type theoretical analysis sofar no reference is made to events.

An event based analysis of cognate objects has been proposed by Moltmann (1989) and Mittwoch (1998) who argue that cognate objects are realization of the Davidsonian event argument. Consider the example from Moltmann (1989) in (17).

(17)   a.   John died a painful death
        b. $\exists e(\text{die}(e, \text{John}) \wedge \text{painful death}(e) \wedge \text{past}(e))$

In this example the cognate object 'painful death' is predicated of the event argument e and this seems to be what we want. However, we have argued that additional accusatives are not only modifiers of the event argument, but rather of the predicate as a whole. Therefore, a natural way to go would be to combine these two insights discussed. If we consider verbs to be relations between individuals and events, i.e. an intransitive verb is of

type $\langle i, \langle e, t \rangle \rangle$ (in which i is the type used for events and e for individuals), then a cognate accusative, being a predicate modifier, takes such a predicate and returns a new predicate of the same type, viz. $\langle i, \langle e, t \rangle \rangle$. From this it follows that a cognate accusative is of type $\langle \langle i, \langle e, t \rangle \rangle, \langle i, \langle e, t \rangle \rangle \rangle$. However, a noun phrase like 'painful death' in (17) will not always function as a cognate object, but could also be used as a direct object of some verb in which case we do not want it to be of a predicate modificational type. In order to distinguish between these two possible occurrences of noun phrases we formulate the following rule:

(18)   Cognate Accusative Rule: if α is a V and β is a cognate object of V, $[\![\alpha\beta]\!]$ is $[\![\beta]\!]([\![\alpha]\!])$.

In other words, in the case a noun phrase acts as a cognate accusative of a verb it takes this verb as its argument instead of being taken as an argument by the verb. In order to make the additional accusative suitable to take a predicate as its argument, we have to type shift the object to a higher modificational type. Therefore, the rule in (18) has to trigger the following type shift rule:

(19)   Cognate Type Shift: $P_{\langle i, t \rangle} \rightarrow \lambda X_{\langle i, \langle e, t \rangle \rangle} \lambda x_i \lambda y_e [P(x) \wedge X(x,y)]$.

In (20) we work out an analysis for the example given in (12).

(20) $[\![\text{beatam vitam}]\!] = \lambda e[\texttt{vivere}(e) \wedge \texttt{beatus}(e)]$
         $[\![\text{vivere}]\!] = \lambda x \lambda e[\texttt{vivere}(e) \wedge \texttt{Ag}(e,x)]$
         Cognate Type Shift: $[\![\text{beatam vitam}]\!] = \lambda X \lambda x \lambda e[\texttt{vivere}(e) \wedge \texttt{beatus}(e) \wedge X(e,x)]$
         $[\![\text{beatam vitam vivere}]\!] = [\![\text{beatam vitam}]\!]([\![\text{vivere}]\!])$
         $= \lambda x \lambda e[\texttt{vivere}(e) \wedge \texttt{beatus}(e) \wedge \texttt{vivere}(e) \wedge \texttt{Ag}(e,x)]$

We are fully aware that the analysis sketched above is only an approximation and that, as with adverbs, things are much more complicated: for instance, as with adverbs, not all modifiers are of a simple intersective kind. But we belief that this is a general problem of modifiers and we do not try or claim to give a complete analysis of the different types of modification. The main point of our analysis is that additional accusatives are predicate modifiers and not direct arguments.

Above we have claimed that not only cognate accusatives, but all additional accusatives have in common that they are predicate modifiers. The accusative of respect nevertheless differs from cognate accusatives in that they are not necessarily event nominals and therefore cannot be analyzed as predicates over events. For the accusative of respect an analysis in terms of non-eventive predicate modifiers of type $\langle \langle e, t \rangle, \langle e, t \rangle \rangle$ seems on the right track.

6   Conclusion

In this paper we have discussed the occurrence of additional accusatives in Latin and Ancient Greek. We showed that they can occur in places that are infelicitous for direct objects. On the basis of this and other arguments we conclude that the different behaviour

of these additional accusatives can be best described by assigning them a semantic type different from normal direct objects. We have argued that the additional accusatives are predicate modifiers. Instead of being taken as arguments by a predicate, they take the predicate as their argument and return a new predicate.

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