

Action nominals between verbs and nouns

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Earlier work has shown clearly that action nominals can be characterized in terms of the extent to which their internal structure is noun-phrase-like (corresponding to a construction with a noun as its head) versus clause-like (corresponding to a construction with a verb as its head).¹ Different languages combine different noun-phrase and clause properties, with some restrictions on the possible combinations. A question that arises is whether an action nominal construction can have internal structural properties that are neither noun-phrase-like nor clause-like. A number of examples of this type are discussed, with the conclusion that this is indeed a possibility. The debate relates to the broader issue of the genesis of new parts of speech, since the consideration of action nominals between verbs and nouns also impinges on such issues as the status of adjectives between verbs and nouns or of participles between verbs and adjectives.

1. Introduction

Recent classical typological studies on action nominals, such as Comrie (1976), Comrie and Thompson (2007), Koptjevskaja-Tamm (1993; 2005) agree that action nominals, as illustrated in (2), (3), and (5) below, can be characterized as combining properties of noun phrases (with a noun as head) and of clauses (with a verb as head). More specifically, the external environment of an action nominal is essentially that of a noun phrase, i.e. an action nominal generally occupies the same positions in the structure of the sentence as can be occupied by other noun phrases. The internal structure of the action nominal, however, can show various degrees of accommodation away from the structure of a clause and in the direction of the structure of a noun phrase. In English, for instance, the derived nominal construction as in (2) retains virtually none of the characteristics of the corresponding clause (1) that identify the latter as a clause in opposition to a noun phrase. In particular, in (2) both notional subject/agent (*the enemy*) and notional object/patient (*the city*) are expressed as genitives (Saxon and Norman, respectively), corresponding to the normal

dependents of a head noun rather than to the normal dependents of a verb in English. By contrast, although (3) functions externally as a noun phrase, more specifically as the subject of the sentence, its internal structure is much more like that of a clause, for instance in that the object/patient (*the city*) is marked in the same manner, namely no explicit marking, as that of the corresponding clause, while the subject/agent (*the enemy*) may either retain its unmarked coding as in a clause, or accommodate to nominal structure by appearing in the Saxon genitive. In Tsez example (5), the action nominal functions as stimulus of the verb ‘know’, in the absolutive case, just as would a non-clausal noun phrase, but its internal structure is identical to that of the corresponding clause (4), with the subject/agent in the ergative case, the object/patient in the absolutive.

- (1) the enemy destroyed the city.
- (2) the enemy’s destruction of the city (was a major setback).
- (3) the enemy(’s) destroying the city (was a major setback).
- (4) Tsez
 už-ā magalu b-ac’-si.
 boy-ERG bread.ABS CLIII-eat-PSTWIT
 ‘the boy ate the bread’.
- (5) Tsez
 (eni-r) už-ā magalu b-āc’-ru-li (r-iy-xo).
 mother-LAT boy-ERG bread.ABS CLIII-eat-PSTPTCP-NMLZ.ABS CLIV-know-PRS
 ‘(the mother knows) that the boy ate the bread’.

From this, one might conclude that action nominals, in particular with regard to their internal structure, can simply be characterized as a phenomenon in between noun phrase and clause, with some combination of nominal and clausal properties, the precise combination varying from language to language and even from construction to construction within a language. While accepting this as a general characteristic of action nominals, in this article we wish to examine whether or not the ‘intermediate’ nature of action nominals can be captured completely by means of some combination of nominal and clausal properties, or whether at least some action nominals in some languages have properties specific to the action nominal construction that are not shared by more typical noun phrases or clauses.

2. Excursus: Adjectives

A useful analog to the investigation we are conducting in this article is the treatment of adjectives as a category in between nouns and verbs, sharing some properties of verbs and some properties of nouns, with different proportions in different languages – see, for instance, Stassen (1997) for a typological approach to this question.

The question has an interesting historical background. In Dionysius Thrax' account of the word classes/parts of speech of Ancient Greek (Uhlig 1883), probably from the second century BCE, a separate class of adjectives was not recognized, rather what we now think of as nouns and adjectives were two sub-classes of a single class. The extraction of adjectives as a distinct word class belongs to later grammatical approaches. By contrast, Dionysius Thrax did recognize participles as a distinct word class, although current terminology would regard them as at best a subclass of adjectives, or perhaps as adjectivalized verbs (much as action nominals are nominalized clauses).

And indeed, in Ancient Greek the inflectional morphology of adjectives is essentially the same as that of nouns. (What I take to be uncontroversial Ancient Greek data and primary analyses are taken from Goodwin (1894), although my interpretations sometimes go beyond what can be directly attributed to Goodwin). Even apparent counterarguments, such as the fact that adjectives have distinct morphological forms for the degrees of comparison, such as *kouphóteros* 'lighter', comparative of *koúphos* 'light', are not watertight in Ancient Greek, since some nouns also have comparative forms, such as *basiléuteros* 'a greater king; more kingly', from *basileús* 'king'. A finer point might seem even more indicative of a noun/adjective divide in Ancient Greek morphology, namely the fact that the genitive plural of first-declension stem-accented nouns involves an accent shift to the genitive plural inflection, e.g. *khórá* 'land', genitive plural *khórôn*, whereas the corresponding adjectives do not show this accent shift, e.g. *aksíā* 'worthy (F)', genitive plural *aksíōn*. But even here, a handful of nouns fail to show the accent shift, e.g. *aphúē* 'anchovy', genitive plural *aphúōn*, and thus belie the validity of the accent shift as an absolute criterion for distinguishing nouns from adjectives. One might therefore argue that the noun/adjective distinction is nascent in Ancient Greek.

By contrast, when one comes to English – also a member of the Indo-European family, and thus sharing a more distant history with Greek – the distinction between adjective and noun seems clear-cut.

Only adjectives can have a comparative form, e.g. *heavy*, comparative *heavier*. Only nouns can form an inflectional plural, i.e. the pattern singular *cat*, plural *cats* is not paralleled by adjectives. (Even those adjectives that can be used, albeit restrictively, as nouns, as in *the rich*, consistently fail to show this inflectional plural). German and Polish occupy somewhat intermediate positions in terms of adjective and noun morphology. In both languages, adjectives and nouns show essentially the same set of case and number distinctions, although the actual inflections are different (with the exception of the shared genitive singular *-(e)s* in archaic German), as can be seen in the singular paradigms given in (6) and (7).

(6) German

	‘good wine’
NOM	gut-er Wein
ACC	gut-en Wein
GEN	gut-en Wein-s (<i>archaic</i> : gut-es Wein-s)
DAT	gut-em Wein

(7) Polish

	‘new town’
NVA	now-e miast-o
GEN	now-ego miast-a
DAT	now-emu miast-u
INS	now-ym miast-em
LOC	now-ym mieści-e

It will also be worth returning to the question of Ancient Greek participles, now in terms of their position with respect to verbs and adjectives, given that they can be characterized as adjectivalized verbs (or deverbal adjectives, in more traditional terminology). Morphologically, Ancient Greek participles decline like adjectives (and, with the caveats mentioned above, nouns), having three genders, three numbers, and five cases. (While some participles have idiosyncratic declensions, in particular in the relation between masculine–neuter on the one hand and feminine on the other, the same is true of some adjectives). On the other hand, they retain several clearly verbal categories, in particular voice (active, middle, passive), aspect (present, aorist, and perfect systems, to use the traditional terminology, corresponding to imperfective, perfective, and perfect); however, they have only a reduced tense-mood system (future versus non-future, but no past versus non-past, and no mood distinction at all), and they completely lack grammatical person (or rather, the verb cat-

egory of person-number). To the best of my knowledge, Ancient Greek participles have no morphological characteristics that are shared with neither adjectives nor verbs. As in (8) below, a participle can thus be characterized as an adjectivalized verb, sharing some properties of both adjectives and verbs, while the phrase headed by a participle can be characterized as a declausal adjectival phrase.

(8) [V]_A [S]_{AP}

3. Nominalizations

Transposing the above brief discussion of participles to action nominals, we can provide an analog to (8) in (9), showing that an action nominal is a nominalized verb (or, equivalently, a deverbal noun), while an action nominal phrase is a declausal noun phrase.

(9) [V]_N [S]_{NP}

This leads to a number of more specific questions, which are set out in (10) and some of which will form the body of this section.

- (10) a) Does an action nominal show a particular noun category?
b) Does an action nominal phrase show a particular feature of noun phrase structure?
c) Does an action nominal show a particular verb category?
d) Does an action nominal phrase show a particular feature of clause structure?
e) Are combinations of noun (phrase) and verb/clause features constrained?
f) Does an action nominal show a category found with neither nouns nor verbs?
g) Does an action nominal phrase show a particular structural feature found with neither noun phrases nor clauses?

The classical typological works on action nominals referred to at the beginning of the article address primarily questions (a)-(d), though they refer also somewhat less systematically to questions (e)-(g). Question (e) is dealt with more thoroughly, within a general account of transcategorial operations, by Malchukov (2004). On the basis of these investigations, one can say that action nominals do indeed stand between verbs and nouns, that phrases headed by action nominals stand between clauses and noun phrases, and that while

different languages and even different constructions in the same language do differ with respect to which verbal versus nominal properties they show, there are none the less implicational universals that constrain the range of cross-linguistic variation; for instance if the encoding of the direct object is assimilated to that of the noun phrase, then so is the encoding of the subject (with perhaps occasional exceptions that require further investigation).

In the present article, we concentrate on questions (f)-(g). In the remainder of this section, we list a number of examples where action nominals do indeed have, at least *prima facie*, properties that are characteristic of neither verbs nor nouns, or neither clauses nor noun phrases.

In Ancient Greek, subjects of verbs normally appear in the nominative case, while unmarked nominal dependents of nouns normally appear in the genitive case. One action nominal construction, however, involves use of the infinitive as complement of a verb of saying, as in (11), which one might translate more literally as ‘the men’s having come is said’. Crucially, the subject of this infinitive must appear in the accusative case. This is a case marking (‘flagging’) possibility that is not available for dependents of nouns or of finite verbs, and thus constitutes a distinct possibility for this particular kind of nominalization.

(11) Ancient Greek

légetai tous ándras eltheîn.
say.PASS.PRS.3SG the.ACC.PL.M man.ACC.PL come.AOR.INF
‘it is said that the men have come’.

Another example is provided by negation in Modern Hebrew (Glinert 1989: 293-302). Verbs are negated by means of the particle *lo*, and this particle can also be used with some nonderived nouns, e.g. *lo-yehudi* ‘non-Jew’. However, action nominals are negated with the prefix *i-*, as in *i-tipul* ‘non-treatment’. The possibility of negation carries over from clauses to action nominals, but the expression of negation is a distinct form restricted to action nominals, found neither with verbs nor with underived nouns.

In German, the direct object of a clause in the accusative normally corresponds to a genitive in the action nominal, as in (12).

(12) German

ihre Erziehung der Kinder
her education the.GEN children
‘her education of the children’

However, a number of verbs with less canonical transitivity, for instance denoting emotional states rather than actions, require a preposition introducing the direct object/stimulus, as in (14), rather than the accusative required by the corresponding verb, as in (13); note that in (13) use of the preposition *zu* ‘to’ is not even possible as an alternative.

- (13) German
Maria liebt den König.
Maria love.PRS.3SG the.ACC king
‘Maria loves the king’.

- (14) German
Maria-s Liebe zu-m König
Maria-GEN love to-the.DAT king
‘Maria’s love of the king’

Note that in German, in other instances one finds a preposition, and indeed the same preposition, with both the verb and its corresponding action nominal, as in (15)–(16).

- (15) German
er kämpft für Transparenz.
he.NOM fight.PRS.3SG for transparency
‘he fights for transparency’.

- (16) German
sein Kampf für Transparenz
his fight for transparency
‘his fight for transparency’

Moreover, one also finds nouns that are not action nominals taking a dependent prepositional phrase, as in (17).

- (17) German
ein Buch für Kinder
a book for children
‘a book for children’

Thus, the structure of a noun with a dependent prepositional phrase is a possibility that exists in German independent of the behavior of action nominals. However, the fact that the action nominal in (14) requires the preposition *zu* ‘to’ is not predictable, neither from the case marking of the arguments of the corresponding verb,

nor from general properties of German noun phrases. While not as spectacular as Ancient Greek example (11), given that neither Ancient Greek verbs nor nouns allow accusative subjects, or the examples with negation in Modern Hebrew, German examples like (14) none the less illustrate a more specific way in which action nominals can have properties that are not predictable from the interaction of verbal/clausal and nominal morphosyntax, even if the resultant structure belongs to a pattern of government by a head noun that is found elsewhere in the language.

In many languages, especially those where action nominals involve assimilation of case marking of dependents to that of the noun phrase, problems arise in trying to include both subject and direct object of a transitive verb, since few languages have two genitive positions, or allow double filling of a single genitive position, to accommodate both subject and direct object. English is somewhat exceptional in this respect, since it has two genitive positions, Saxon and Norman. When both are present, as in (18) (which repeats (2)), the pre-head Saxon genitive corresponds to the subject, the post-head Norman genitive to the object.

(18) the enemy's destruction of the city

While both unmarked arguments of the transitive verb can thus be encoded as dependents of the action nominal, a further question does arise, namely whether it is predictable that this would be the correspondence between arguments of verb and of noun OR could one imagine a language just like English but where the subject would correspond to the Norman genitive, the object to the Saxon genitive? One could certainly imagine ways in which one might construct an answer whereby this would be predictable, for instance in terms of the basic SVO constituent order of the English clause and the corresponding constituent order of the action nominal phrase; the most famous elaboration of this idea is surely Chomsky (1970).

We may note in passing that a number of other languages have more restricted versions of the possibility illustrated by (18) in English. In German, for instance, the prenominal genitive is largely restricted to possessive adjectives and genitives of personal names, thus giving rise to examples like (12) above. In Czech, the possibilities are broader than in German, but morphological and semantic constraints (not all inflectional classes of nouns form the required pre-head possessive adjective, and the semantic interpretation of such possessive adjectives is restricted) mean that the construction is not as productive as its English counterpart, but still examples like (20)

(from Bauer et al. 1960: 323) closely match the structure of (18) in English.

(19) Czech
Lenin kritizoval mylné názory oportunistů.
Lenin.NOM criticized erroneous.ACC views.ACC opportunists.GEN
'Lenin criticized the erroneous views of the opportunists'.

(20) Czech
Leninova kritika mylných názorů oportunistů
Lenin.POSSADJ criticism erroneous.GEN views.GEN opportunists.GEN
'Lenin's criticism of the erroneous views of the opportunists'

Alongside examples like (2) (=18)), English also has the structure of (21). Although the action nominal *destruction* itself does not show any overt voice opposition corresponding to that between active *destroyed* and passive *was destroyed*, the structure of (21) none the less closely parallels that of the passive clause (22).

(21) the city's destruction by the enemy

(22) the city was destroyed by the enemy.

It is therefore worth considering in somewhat more detail exactly what the relation might be between passive clauses like (22) and the type of action nominal construction represented by (21). First, it should be noted that with action nominals English has yet another possibility, as in (23), which seems to combine the active expression of the patient with the passive encoding of the agent. This at least points to absence of exact equivalence between passive clause and action nominal with a *by* phrase.

(23) the destruction of the city by the enemy

In languages that lack a productive equivalent of the English double genitive construction as in (18), such passive-like action nominals are the most obvious translation equivalents, as in Russian example (24), in comparison with the passive clause (25). (Note that in Russian the genitive follows its head noun, so the fact that the genitive *goroda* follows the head noun *razrušenie* in (24) simply follows general restrictions on constituent order and is not a specific shift in constituent order with respect to (25), where the nominative *gorod* normally precedes the passive verb *byl razrušen*).

(24) Russian
razrušenie goroda vragom
destruction city.GEN enemy.INS
'the destruction of the city by the enemy'.

(25) Russian
gorod byl razrušen vragom.
city.NOM was destroyed enemy.INS
'the city was destroyed by the enemy'.

Two questions arise. First, are structures like (21) and (24) properly characterized as passives? Second, does the structure with an agent phrase dependent on a head noun occur elsewhere in the language, with head nouns that are not action nominals? We address these two questions in reverse order.

In English, it is indeed possible to have an agent phrase dependent on a head noun that is not an action nominal, as in (26).

(26) a book by Tolstoy

However, the corresponding construction in Russian, as in (27), is impossible.

(27) Russian
*kniga Tolstym
book Tolstoy.INS
'a book by Tolstoy'

Possible translations into Russian would involve putting the dependent into the genitive, i.e. *kniga Tolstogo*, more literally 'Tolstoy's book', although like this English translation this version does not exclude other interpretations, e.g. that the book belongs to Tolstoy rather than having been written by him. If one wants to exclude such alternative interpretations, then a paraphrase is necessary, going beyond the range of constructions considered here, e.g. *kniga, napisannaja Tolstym* 'a book written by Tolstoy', where the instrumental *Tolstym* is agent of the passive participle 'written'. In Russian, therefore, if (24) is analyzed as some kind of passive, then the expression of the agent would have to be considered a verbal property, since underived nouns do not allow an agent phrase in the instrumental.

In yet other languages, the expression of the agent in the action nominal construction corresponding to (21) or (24) is not in the same form as the agent of a passive verb. In Italian, for instance, the agent

of a passive sentence is expressed by means of the preposition *da* ‘from’, as in (28), but the agent of an action nominalization requires the more complex expression *da parte di*, literally ‘from [the] part/side of’, as in (29).

(28) Italian

la stazione di Pompei era occupata da manifestanti.
the station of Pompei was occupied from demonstrators
‘Pompei station was occupied by demonstrators’.

(29) Italian

l’occupazione della stazione di Pompei da parte di manifestanti
the occupation of the station of Pompei from part of demonstrators
‘the occupation of Pompei station by demonstrators’

We find a similar situation in German, where the agent is introduced by the preposition *von* ‘from’ in passive sentences like (30), but by *durch*, literally ‘through’, in action nominals like (31). (In passive clauses, *durch* introduces inanimate forces).

(30) German

das Haus wurde vom Feind zerstört.
the house became from-the enemy destroyed
‘the house was destroyed by the enemy’.

(31) German

die Zerstörung des Hauses durch den Feind
the destruction the house.GEN through the enemy
‘the destruction of the house by the enemy’.

While nonderived nouns may take prepositional phrases in Italian and German, neither the general structure of noun phrases nor comparison with corresponding passive sentences will predict how the agent is encoded in derived nominals. Such phenomena at least call into question the passive (or passive-like) analysis of action nominals in these languages.

We may close this discussion of voice and action nominals by noting a number of complications that arise in the interpretation of dependents of action nominals corresponding to transitive verbs. In English, when both subject/agent and object/patient are present, as in (2), (21), and (23), there is in principle no problem, since only one interpretation is possible – inverting the two noun phrases in such examples always inverts the meaning (i.e. the city destroyed the enemy, rather than the enemy destroyed the city). However, when only one

argument is present, as in (33) and (35), strange things start happening. Example (33) is fine with *the pianist* being taken as subject/agent, just as in (32) where there is also an overt object/patient. However, the dominant interpretation of (35) for native speakers is that the pianist was executed, rather than that s/he executed some performance. Clearly, the possibilities for interpretation go beyond a purely syntactic account, involving also semantic and pragmatic factors.

(32) the pianist's performance of the sonata won universal approval.

(33) the pianist's performance won universal approval.

(34) the pianist's execution of the sonata won universal approval.

(35) the pianist's execution won universal approval.

However, it would be misleading to attribute this purely to semantics/pragmatics, since languages can and do differ in the range of interpretations they allow. In Latin, for instance, an example like (36) is ambiguous between the so-called subjective genitive (God loves someone) and objective genitive (someone loves God) interpretations. In English, the Saxon genitive, as in (37), allows only the former interpretation, while the Norman genitive, as in (38), allows both interpretations.

(36) Latin
amor Dei
love God.GEN
'God's love (of X) or X's love of God'

(37) God's love (*i.e.* God loves X)

(38) the love of God (*i.e.* God loves X or X loves God)

Stifter (2006: 138-139) notes specifically that in Old Irish, a possessive dependent of a transitive action nominal can only be interpreted as its object, irrespective of whether this dependent is a genitive noun phrase following the action nominal, as in (39), or a possessive pronoun preceding it, as in (40).

(39) Old Irish
serc inna mná
love the.F.GEN woman.GEN
'the love of the woman (*i.e.* X loves the woman)'

- (40) Old Irish
m' adall
my visit
'[someone's] visit to me (i.e. X visits me)'

4. Conclusions

In this article, we have investigated the grammar of action nominals between that of verbs or clauses and that of nouns or noun phrases. In general, the grammar of action nominals can be viewed as an (often partial) accommodation of clausal structure to noun phrase structure. However, occasionally one finds possibilities with action nominals that are not found with either clauses or nonderived nouns, such as the accusative subject of the infinitive in Ancient Greek, or the negative prefix *i-* in Modern Hebrew. More often, one finds a construction with action nominals that, while different from that found with clauses, illustrates a pattern found with nonderived nouns, but where the precise form of the resultant construction is not predictable from the interaction of clausal and nominal morphosyntax.

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Notes

¹ Throughout, “action nominal” is used in a broad sense, to encompass both productive and nonproductive formations, with interpretations ranging from denoting actions to denoting facts. The term “nominalization” is avoided in this use since it does not in principle exclude, for instance, agent nominals, which are not the topic of discussion in this article. The following abbreviations are used: A – adjective, ABS – absolutive, ACC – accusative, AOR – aorist, AP – adjective phrase, CL followed by a roman numeral – class/gender, DAT – dative, ERG – ergative, F – feminine, GEN – genitive, INF – infinitive, INS – instrumental, LAT – lative, LOC – locative, M – masculine, N – noun, NMLZ – nominalizer, NOM – nominative, NP – noun phrase, NVA – nominative-vocative-accusative, PASS – passive, PL – plural, PRS – present, PSTPTCP – past participle, PSTWIT – past witnessed, S – sentence, SG – singular, V – verb.

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