

On the ergative behavior of verbal compounds

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In verbal compounds, or “verbal complex”, A, recipient, and beneficiary are resistant to combine with the verbal element, and P, S, instrument, and location are easier to do so. This constraint shows “ergative” behavior. In this paper, I will argue that this “ergative” behavior is motivated by the constraint that is similar to DuBois’s (1985) “given A constraint”. However, there still remain problems with this argumentation; Keenan’s (1984) motivation for ergativity can be the key to solve the problems.

1. Introduction

“Verbal compound” is defined as the combination of a verbal element (such as verb, gerund, etc.) and another element (such as noun, adverb, etc.). This includes compounds such as those in (1) (2) and incorporation as in (3) (4).

(1) English compounds

a. *fox-hunting*

b. *water-drinking*

c. *bird-chirping*

(2) Japanese compounds

a. *kitune-gar-i* “fox-hunting”
fox-hunt-NMLZ

b. *ame-hur-i* “raining”
rain-fall-NMLZ

(3) Nahuatl noun incorporation (Sapir (1911:260))

ni-nica-qua “I eat flesh./ I am flesh-eater.”
I-flesh-eat

(4) Chukchee noun incorporation (Polinsky (1990:350))

atləg=en qaa=nmə=gʔe
father=ABS reindeer=kill=AOR.3SG
“The father killed a reindeer.”

Not only compounds, but also phrases that include a verbal element have similar characteristics that will be discussed in the next section; for example, Hungarian pseudo incorporation and German VP topicalization.

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(5) Hungarian pseudo-incorporation (Farkas (2006:84))

Anna verset olvas “Anna poem reads/ Anna is reading poems.”
Anna poem.ACC reads

(6) German VP topicalization¹

Einen Autounfall gebaut hat er noch nie.
an accident (ACC) caused has he.NOM not yet
“He has never caused an accident.”

I will use the term “verbal complex” as the cover term for verbal compounds such as (1) (2) (3) (4) and phrases such as (5) (6).

In verbal complex, A is basically not allowed, and S and P are most frequently used: e.g. **doctor-recommending, bird-chirping, fox-hunting*, etc. Comrie (1978:389) mentions that this is a representation of ergativity.

Research questions: (1) what is common and different between ergativity in the typological sense (Dixon (1994)) and the “ergative” behavior of verbal complex? (2) What is the motivation for “ergative” behavior of verbal complex?

2. “Verbal complex”

“Verbal complex” as defined in the present paper include many types of words and phrases; they include verbs such as incorporation, gerunds such as *fox-hunting* in English, and phrases such as German VP topicalization. Therefore, some justification is needed before I treat them as a category. They share the following characteristics²: (a) S, P, location, instrument nouns are frequently used; (b) examples of A, beneficiary, and recipient are rare; (c) referential nouns are basically avoided with a few exceptions.

As shown in the examples in the previous section, S and P are frequently used in verbal complex; however, nouns that have other semantic roles, e.g. location, instrument, etc. are also often used.

(7) Japanese compounds

a. *inaka-guras-i* “countryside-living” b. *hiza-ger-i* “knee-kicking”
countryside-live-NMLZ knee-kick-NMLZ

¹ Expressions such as (3) and (4) are not compounds but phrases; therefore, it is inappropriate to use the term “verbal compound” to refer to them. This will be discussed later in Section 4.

² Of course, there are differences among those included in “verbal complex” though they share some similarities listed above; some of the differences are discussed later in this paper.

(8) Modern Nahuatl incorporation (Merlan (1976:185))

Yaʔ ki-kočillo-teteʔki panci

3SG 3SG:it-knife-cut bread

“He cut the bread with the knife.”

(9) Nadëb incorporation (Weir (1990:334))

ōm kalapéé ting yó sooh

2sg child support on.top.of be.sitting

“The child is sitting on your seat.” (Lit. “The child is seat-on-sitting you.”)

(10) German VP topicalization

Bei ihren Eltern gewohnt hat Silke damals, als sie klein war³.

with her parents lived has Silke at that time when she was little

“Silke lived with her parents when she was little.”

It is well known that A is basically not allowed in verbal compounds (cf. Merlan (1976), Mithun (1984), Sadock (1985), Polinsky (1990), Gertz (1998), etc.), as in (11) and (12). This constraint applies to the cover category “verbal complex” as well (see (13)). There are a few exceptions to the constraint, such as (14).

(11) English compounds

a. **doctor-recommending*

(DOCTOR RECOMMENDS something)

b. **horse-drinking*

(HORSE DRINKS something)

(12) Chukchee incorporation (Polinsky (1990:350))

qoraŋə atlage=nme=gʔe

reindeer (ABS) father=kill=AOR.3SG

*“The father killed the reindeer.”

“The reindeer killed the father.”

(13) German VP topicalization

**Ein Hund gebissen hat ihn noch nie.*

a dog (NOM) bitten has him.ACC not yet

Intended: “A dog has never bitten him.”

³ Though glossed with “with” in English, the German preposition *bei* is a locative marker rather than a comitative marker.

(14) Boni incorporation (Sasse (1984))

Míj aweera kawáyd'aadéed'i idohóo-d'isa

house Boni.GEN usually women-build.IMPF.3SM

“Boni houses are usually built by women.”

Note that not only A, but also other semantic roles are not allowed in verbal compounds: in particular, recipient and beneficiary (Rosen 1989:316).

(15) English compounds

a. **child-giving*

(GIVE something TO CHILD)

b. **parents-sending*

(SEND something TO PARENTS)

(16) Chukchee incorporation (Polinsky (1990:350))

**atləg=ən qoraŋə akka=nmə=gʔe*

fater=ABS reindeer(ABS) son=kill=AOR.3SG

Intended: “The father killed a/the reindeer for his son.”

(17) German VP topicalization

??*Einem Kind gegeben habe ich die Gitarre.*

a child (DAT) give have I (NOM) the guitar (ACC)

“I gave the guitar to a child.”

In sum, agent, recipient, and beneficiary are resistant to form a unit with a verb, and patient, theme, location, and instrument are easier to do so⁴. That is to say, the acceptability of nouns in verbal compounds should be accounted for in terms of semantic roles, not A, S and P. In this respect, the “ergative” behavior of verbal compounds is different from ergativity in the typological sense (Dixon (1994)).

Another characteristic of verbal compounds is that they do not allow referential nouns. In English NV compounds such as *fox-hunting* and *berry-picking*, *fox* and *berry* must be non-referential, so are nouns in Japanese compounds such as *kitune-gar-i* “fox-hunting” in (2). Incorporation, too, does not allow referential nouns to be

⁴ Actually, adverbs are also frequently used in verbal compounds (cf. Rivero (1992)): e.g. English *fast-walking*, Japanese *haya-zini* “early-dying”, German *Offen gesprochen haben wir niemals*. “We have never **spoken frankly**.”, etc. Manner adverbs are easier to be used and other types of adverbs (adverbs of time, frequency, etc.) are rather resistant. This is an interesting and important phenomenon, but here I discuss the combination “noun + verb” only because the discussion on “adverb + verb” is beyond scope of the present paper.

incorporated (Mithun (1985)). Sasse (1984:253) states that, in Boni incorporation, “generic NPs dominate over specific NPs, ..., non-referential NPs dominate over referential NPs, ...”; for example, the agent *idohóo* “women” in (14) is generic and non-referential. In German VP topicalization, too, non-referential NPs are preferred; however, see Section 4 for the use of referential NPs in this construction.

3. Constraint of animacy

Why are certain semantic roles not used in verbal complex? An important key to solve the problem is the “given-A constraint” proposed by DuBois (1985).

DuBois (1985, 1987) suggested the “given-A constraint”, which means that, in discourse, new referents appear not as A, but S or P. A is most frequently “given”, while S and P can either be given or new.

My proposal is that the “given-A constraint” is the key to explain the motivation for excluding certain semantic roles in verbal compounds. The constraint not only applies to A, but also to other semantic roles that are typically high in animacy, i.e. recipient and beneficiary. This is because agent, recipient, and beneficiary are basically animate and nouns that have high animacy are more often referential, specific, and definite than not. For example, I examined the occurrence of *einem* (dative indefinite article for masculine nouns) in a German corpus (<http://www.vu.hiroshima-u.ac.jp/deutsch/>, 14000 sentences, checked on 11 July 2011) in order to see how often one finds non-referential recipient; I found only one sentence which contain non-referential recipient with *einem*. In contrast, I found more than a hundred sentences with a non-referential patient by checking sentences which contain *einen* (accusative indefinite article for masculine nouns). As for non-referential beneficiary NPs (checked with benefactive preposition *für* + indefinite article *einen*), I found no example at all.

Therefore, I suggest the following constraint in verbal compounds:

Semantic roles which associate with high animacy are less frequently used in verbal compounds because they are typically referential.

I think this constraint explains the reason why agents, recipients and beneficiary are usually not used in verbal compounds.

At this point, I would like to discuss why referential NPs do not form a unit with a verb. I think there are at least two possible motivations involved here:

(a) In general, morphemes in compounds are non-referential (cf. Bauer (2006)).

Therefore, referential nouns are not used in verbal “compounds”. (Note, however, that N-N compounds may contain proper noun(s), e.g. Turing machine, which is not the case with verbal compounds such as incorporation and English N-V compounds. Japanese verbal compounds allow proper nouns; for detail, see Section 4)

(b) Verbal compounds are basically lexical verbs (Mithun (1984, 1985)). An important characteristic of verbs is that they do not refer (cf. Hopper and Thompson (1984, 1985)); in other words, they do not have extension. Verbs cannot be definite, referential, or specific in the same way nouns are; consequently, there is no “proper verb” or “definite article for verbs”. Verbs do not refer and may not contain referential elements, so it is impossible to combine a referential noun with a verb to form a verbal compound; thus, semantic roles that are typically high in animacy are less frequently used in verbal compounds.

4. Referential nouns in “verbal complex”

There are at least two examples in the category “verbal complex” in which referential nouns are allowed: Japanese compounds and German VP topicalization.

In Japanese, there are compounds that are similar to English NV compounds such as *fox-hunting*.

(18) Japanese compounds (= (2))

- | | |
|--------------------------------------|-------------------------------|
| a. <i>kitune-gar-i</i> “fox-hunting” | b. <i>ame-hur-i</i> “raining” |
| fox-hunt-NMLZ | rain-fall-NMLZ |

These examples are similar to English compounds such as *fox-hunting*; however, in Japanese it is possible to combine a proper noun with a nominalized form:

- (19) a. *Kan-oros-i* “making Kan resign his post”
Kan-make.resign-NMLZ
- b. *Tanaka-ibir-i* “bullying Tanaka” (Lit. “Tanaka-bullying”)
Tanaka-bully-NMLZ
- c. *Amerika-gaer-i* “returning from/to the U.S.” (Lit. “America-returning”)
America-return-NMLZ

Kan and *Tanaka* are personal names. In this case, the grammatical characteristics of Japanese nominalization make it possible to combine a proper noun with the nominalized verb: the nominalized verb has fewer characteristics as verbs; it is closer to

a genuine noun. There are at least two pieces of evidence that supports this claim.

First, the morpheme order “nominalized form + noun” also makes compounds in Japanese. In English, this order does not yield words, but phrases (*fox-hunting* => *hunting fox*).

- (20) a. *nak-i-gao* “tearful face” b. *kumor-i-zora* “cloudy sky”
 cry-NMLZ-face get.cloudy-NMLZ-sky

Second, the Japanese nominalized form of the verb cannot take arguments, as in (21c). This is different from the English gerund, which may take argument just like verbs do (*I hunt foxes* => *hunting foxes*).

- (21) a. *kitune=o kar-u*⁵ “hunt foxes”
 fox=ACC hunt-NONPST
 b. *kitune-gar-i* “fox-hunting”
 fox-hunt-NMLZ
 c. **kitune=o kar-i* (cf. *kitune=o kar-u koto* “hunting foxes”)
 fox=ACC hunt-NMLZ fox=acc hunt-NONPST thing
 d. *kitune=no kar-i* “hunting foxes” (or “fox’s hunting”)
 fox=GEN hunt-NMLZ

These two phenomena indicate that the Japanese nominalized verb is closer to a noun rather than to a verb. Nouns can freely combine with a proper noun, as in (22). Compounds such as those in (19) are made by the process analogous to that of (22).

- (22) a. *Kan-souridaijin* “prime minister Kan”
 Kan-prime.minister
 b. *Tanaka-suisan* “Tanaka Fishery”
 Tanaka-fishery
 c. *Amerika-daitooryoo* “president of the U.S.”
 America-president

Note, however, that if common nouns are used in compounds, such as *kitune-gari* “fox-hunting”, the nouns are always non-referential; in this case, the constraint “morphemes in compounds do not refer” is working. (Or “morphemes in compounds

⁵ *Kar-* and *gar-* are allomorphs of the verb *kar-* “to hunt”.

prefer non-referential interpretation”?)

The second example is the German VP topicalization. In this construction, non-referential NPs are preferred; however, it is possible to use referential NPs, too.

- (23) a. *Anna gebissen hat er noch nie.*
 Anna bitten has he.NOM not yet
 “He has never bitten Anna.”
- b. *Die Oper gesehen habe ich noch nie*
 the opera (ACC) seen have I.NOM not yet
 “I have never seen the opera.”

Anna and *die Oper* are obviously referential nouns, but the sentences are grammatical.

The reason why German VP topicalization allows referential NPs is very simple. *Anna gebissen* and *die Oper gesehen* are not lexical verbs, but phrases that are meant to be used only once in one specific occasion. German VP topicalization is not a word/verb-forming process; therefore, it is free from the constraints of referentiality which applies to words or verbs. (According to my research, however, sentences with a non-referential NP are more acceptable than those with a referential one.)

The reason why referential nouns can be used in Japanese compounds and German VP topicalization is that they do not form prototypical “verbal compounds”. Japanese compounds are not prototypical N-V compounds; they share some characteristics with N-N compounds. German VP topicalization does not form compounds; it forms phrases that are used in one occasion.

Table 1. Referential nouns in compounds and phrases

	Referential common noun	Proper noun	
N-N compounds	–	+	
N-V compounds	–	–	}
N V phrase	+	+	

5. Conclusion and problems

The “ergative” behavior of the verbal complex is different from ergativity in the typological sense (Dixon (1994)) in that the former differentiates NPs in terms of semantic roles and the latter in terms of A, S and P. The former is motivated by the cognitive constraint that agents, recipients, and beneficiaries are most frequently

referential; the latter not only has cognitive motivation (“given-A constraint”), but also the functional motivation for differentiating S, A, and P.

My hypothesis is that the reason why the verbal compounds exclude agent, recipient, beneficiary is that they are typically highly referential, specific, and definite, and the verb may not contain referential elements because (i) morphemes in compounds are basically non-referential and (ii) the verb does not have extension and may not be referential.

Lastly, I would like to mention two problems of my analysis.

[1] My hypothesis fails to explain the fact that even constructions that allow referential nouns (Japanese compounds and German topicalization) are resistant to the inclusion of agent, recipient, and beneficiary; for example, the German example (24).

(24) German VP topicalization

- a. **Ein Hund gebissen hat ihn noch nie.*
a dog (NOM) bitten has him.ACC not yet
Intended: “A dog has never bitten him.”
- b. *?*Ein Politiker geredet hat in diesem Dorf noch nie*
a politician talked has in this village not yet
“A politician has never talked in this village.”

[2] Patient is the most frequently attested semantic role in verbal complex. In the German VP topicalization construction, transitive objects are the most acceptable NPs, followed by oblique NPs and intransitive subjects. According to Comrie (1978), English NV compounds such as *fox-hunting* show a similar phenomenon.

In order to account for these, semantic factors must possibly be taken into consideration; namely, patient is easier to form a semantic unit with a verb than other semantic roles (cf. Keenan’s (1984) claim on the motivation for ergativity).

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