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The case of accusative embedded subjects in Mongolian

Klaus von Heusinger^{a,*}, Udo Klein^b, Dolgor Guntsetseg^a

^a University of Stuttgart, Germany

^b University of Bielefeld, Germany

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ABSTRACT

In Mongolian there are a number of subordinate clauses in which the form of the subordinate clause subject alternates between the morphologically unmarked nominative case and the morphologically marked accusative case. We argue that in at least some instances the accusative marking of embedded subjects should not be analysed as a consequence of subject-to-object raising, but as differential (embedded) subject marking. This argument is based on the one hand on evidence that in some cases the accusative embedded subject is a constituent of the subordinate clause, and on the other hand on evidence that even if these accusative NPs are constituents of the matrix clause they do not show direct object properties.

We conclude that these accusative subjects are not raised to object, and propose instead that the accusative marking of embedded subjects is motivated by the need to (morphologically) distinguish similar adjacent subject NPs across clause boundaries.

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1. Introduction

Mongolian has a number of subordinate clauses in which the form of the embedded subject alternates between the morphologically unmarked nominative case and the morphologically marked accusative case. Klein et al. (in press) argued that this alternation depends on the adjacency of matrix subject and embedded subject and on the referentiality of the embedded subject. They claimed that this NOM/ACC alternation on embedded subjects is an instance of differential subject marking, based (i) on the assumption that this alternation involves the same grammatical function being morphologically marked differently, and (ii) on the fact that the referentiality of the embedded subject is a conditioning factor in this case alternation (cf. de Hoop and de Swart (2008) on the factors conditioning differential subject marking).

The question that Klein et al. (in press) did not address is whether this case alternation can also be analysed as an alternation of two different constructions: one in which the embedded subject is raised to the object position of the matrix clause and consequently marked as accusative, and the other one in which the embedded subject is not raised and consequently remains in the morphologically unmarked form. Since this is precisely what has been proposed for Japanese in Kuno (1976), it is interesting to compare Mongolian with Japanese. The proposal that accusative embedded subjects in Japanese should be analysed as being raised to object position has not remained unchallenged. For example, Sells (1990:445) has argued that while the accusative embedded subject is “a (surface) constituent of the matrix clause, it cannot be an object of the matrix verb, and therefore cannot have been raised”. Instead, Sells argues that the accusative NP is scrambled into the matrix clause, and explains the accusative on the NP in terms of ‘semantic’ case.

* Corresponding author at: Institut of Linguistics, Universität Stuttgart, Keplerstr. 17, 70174 Stuttgart, Germany.

E-mail addresses: Klaus.vonHeusinger@ling.uni-stuttgart.de (K. von Heusinger), udo.klein@uni-bielefeld.de (U. Klein), dolgor.guntsetseg@ling.uni-stuttgart.de (D. Guntsetseg).

In this paper we argue against analysing these embedded accusative subjects as being raised to object. In section 2 we briefly present the morphological marking of arguments in the main clause, and in section 3 we turn to the morphological marking of arguments in subordinate clauses, showing that the embedded accusative subjects can be found in a number of different subordinate constructions. In section 4 we show that the embedded accusative subject may but need not be a constituent of the matrix clause. Given that in general there is no one-to-one mapping between position in constituent structure and grammatical function, we provide in section 5 additional evidence from passivisation and causativisation that these embedded accusative subjects should not be analysed as direct objects. In section 6 we show that accusative subjects have different binding properties from direct objects, thus adding to the evidence that accusative subjects should not be analysed as subject-to-object raising. In section 7 we propose an alternative explanation for the accusative marking of these embedded subjects, namely as a means of morphologically distinguishing adjacent subject NPs across clause boundaries. Section 8 concludes.

2. Argument encoding in Mongolian

The basic word order in Mongolian is SOV. Main clause subjects in Mongolian are in general morphologically unmarked.

- (1) a. Zagdaa ene deeremchn-ig bari-san.
 police this thief-ACC¹ catch-PST
 'The police caught this thief.'
- b. Ene deeremchin zagdaa-d bari-gd-san.
 this thief police-DAT catch-PASS-PST
 'This thief was caught by the police.'

The direct object is morphologically marked by the suffix *-ig* or its allomorph *-g*. The suffix can also cause preceding syllables to shorten, as the contrast between *deeremchn-ig* (thief-ACC) and *deeremchin* in (1a) and (1b) shows. The morphological marking of the direct object depends among other things on the referentiality of the argument (see Guntsetseg (2009) for a detailed presentation of differential object marking in Mongolian). If it is expressed by a pronoun, name or a demonstrative NP, then it occurs obligatorily in the accusative case.

- (2) a. Bold namaig/*bi har-san.
 Bold 1SG.ACC/1SG.NOM see-PST
 'Bold saw me.'
- b. Bold Tuya*(-g) har-san.
 Bold Tuya-ACC see-PST
 'Bold saw Tuya.'
- c. Bold ene deeremchn*(-ig) har-san.
 Bold this thief-ACC see-PST
 'Bold saw this thief.'

If the direct object is expressed by an indefinite NP, then it may be suffixed with *-(i)g*, as in (3a), or it may occur in the morphologically unmarked form (3b), which is identical to the form of the subject in (3c).

- (3) a. Zagdaa neg deeremchn-ig bari-san.
 police a thief-ACC catch-PST
 'The police caught a thief.'
- b. Zagdaa neg deeremchin bari-san.
 police a thief catch-PST
 'The police caught a thief.'
- c. Neg deeremchin zagdaa-d bari-gd-san.
 a thief police-DAT catch-PASS-PST
 'A thief was caught by the police.'

¹ The glosses are as follows: 1SG: 1st person, singular; 3.POSS: 3rd person possessive; ACC: accusative; CAUS: causative; COM: comitative; COMP: complementiser; CVB: converb; DAT: dative; FUT: future; GEN: genitive; INF: infinitive; INST: instrumental; NOM: nominative; PASS: passive; PRS: present tense; PST: past tense; Q: question particle; REFL: POSS: reflexive-possessive; TOP: topic marker.

Obligatory arguments other than the subject and direct object are obligatorily case marked depending on the semantic role assigned to the argument. To give two examples, the recipient in (4a) is marked as dative, and the non-subject NP in (4b) is marked by the suffix *-tai* as comitative.

- (4) a. Tuya nadad nom ug-sun.
 Tuya 1SG.DAT book give-PST
 'Tuya gave me a book.'
- b. Tuya bagsh-tai uulz-san.
 Tuya teacher-COM meet-PST
 'Tuya met with the teacher.'

Before moving on to the encoding of arguments in subordinate clauses, we remark briefly on our use of case terminology. The fact that the direct object is expressed either by a morphologically unmarked NP or by an NP suffixed with *-(i)g* does not justify the assumption that all direct object NPs have accusative syntactic case. One example of a syntactic generalisation that would justify the introduction of syntactic case is case agreement between nouns and modifying adjectives. Since to our knowledge in Mongolian there are no such generalisations (in particular there is no case agreement between nouns and adjectives), we shall refrain from saying that the NP *neg deeremchin* in (3b) has the 'syntactic case' accusative.²

3. Argument encoding in subordinate constructions

In this section we show how the arguments (in particular the subjects) of certain types of embedded clauses may be encoded. Like e.g. Turkish (see e.g. Kornfilt, 2008), Mongolian also displays a nominative/genitive alternation on subjects of subordinate clauses, and like Japanese (see e.g. Kuno, 1976), it also displays a nominative/accusative alternation. As we will show, while embedded genitive subjects are restricted to object clauses, embedded accusative subjects are not so restricted, since they can also appear in complementiser and adverbial clauses, in which the genitive is not possible.

To begin with, consider the following sentence:

- (5) Bi Bold-in ene deeremchn-ig bari-sn-ig har-san.
 I Bold-GEN this thief-ACC catch-PST-ACC see-PST
 'I saw Bold's catching of this thief.'

In (5) the subordinate clause *Boldin ene deeremchnig barisnig* ('Bold's catching of this thief') is the direct object of *harsan* ('saw'), and is suffixed like the direct object NP in (6) with *-(i)g*.

- (6) Bi ene deeremchn-ig har-san.
 I this thief-ACC see-PST
 'I saw this thief.'

Secondly, note that the subject *Boldin* of the object clause in (5) is encoded the same way as the possessor of an NP (7):

- (7) Bi Bold-in duu-g har-san.
 I Bold-GEN younger.sibling-ACC see-PST
 'I saw Bold's younger sibling.'

Thirdly, the non-subject arguments of the object clause in (8a) are encoded the same way in which the non-subject arguments of a main clause are encoded (8b):

- (8) a. Bold Tuya-gin nadad nom ug-uh-ig har-san.
 Bold Tuya-GEN 1SG.DAT book give-INF-ACC see-PST
 'Bold saw Tuya give me a book.'
- b. Tuya nadad nom ug-sun.
 Tuya 1SG.DAT book give-PST
 'Tuya gave me a book.'

² cf. Spencer (2006, 2008) for the difference between morphological and syntactic case.

This type of structure in which the embedded subject is encoded like a possessor, the non-subject arguments are encoded like in a main clause and the verb shows nominal inflection is classified as 'possessive-accusative' nominalisation in Koptjevskaja-Tamm (1993).

The subjects of object clauses can appear not only with genitive case, but also with the accusative case (9a) or in the morphologically unmarked form (9b).

- (9) a. Bi Bold-ig ene deeremchn-ig bari-sn-ig med-sen.
I Bold-ACC this thief-ACC catch-PST-ACC know-PST
'I knew that Bold caught this thief.'
- b. Bi Bold ene deeremchn-ig bari-sn-ig med-sen.
I Bold this thief-ACC catch-PST-ACC know-PST
'I knew that Bold caught this thief.'

According to Kullmann and Tserenpil (2001), "some linguists" suggested as a "rule" that the subject "tends" to be in the genitive if the predicate is transitive, and accusative if the predicate is intransitive. Kullmann and Tserenpil (2001:393) are "not too happy with [this rule], but lack a better explanation". As our findings indicate (cf. Klein et al., in press) the preference for an accusative embedded subject over a morphologically unmarked embedded subject appears to depend on the adjacency of matrix and embedded subjects as well as on the referentiality of the embedded subject.

Note that unlike in Japanese (see Sells, 1990) accusative subjects in Mongolian are not restricted to unaccusative predicates, but are perfectly acceptable also with transitive predicates like *barisnig* (catch.PST.ACC), as (9a) shows.³

Accusative subjects can also occur in complementiser clauses, like (10), where the complementiser is realised by *gej*, literally 'say so'. This construction is widespread and not restricted to verbs of saying.

- (10) Bi Bold(-ig) ene deeremchn-ig bari-san gej hel-sen.
I Bold-ACC this thief-ACC catch-PST COMP say-PST
'I said that Bold caught this thief.'

Accusative subjects also appear in converb clauses, like (11), where the embedded verb *barigdtal* (catch.PASS.CVB) is suffixed by the passive marker and a converb suffix. The semantic relation between the converb clause and the matrix clause is not overtly expressed, but must be inferred from the context.

- (11) Bi ene deeremchin(-ig) bari-gd-tal hulee-sen.
I this thief-ACC catch-PASS-CVB wait-PST
'I waited until this thief was caught.'

Finally, accusative subjects can also occur in adverbial clauses (12). These clauses take the case that is governed by the postposition.

- (12) Bi Tuya(-g) bagsh-tai uulz-san-i daraa yav-san.
I Tuya-ACC teacher-COM meet-PST-GEN after go-PST
'I left after Tuya met with the teacher.'

Guntsetseg (in press) investigated the factors conditioning the case alternation on embedded subjects in object clauses and adverbial clauses. The result was that in both subordinate clause types, sentences with an embedded accusative subject were judged significantly better than sentences with an embedded (morphologically) unmarked subject, if (i) the embedded subject immediately follows the matrix subject, and if (ii) the embedded subject is high on the referentiality scale. This indicates that this preference for accusative over morphologically unmarked subjects appears to be independent of the subordinate clause type.

³ This is important in view of the fact that the explanation suggested in Sells (1990) for the accusative form in e.g. Sells' example (1b) is that "arguments can appear showing their 'deep' or 'logical' relations directly in the case marking."

- (1.b) John ga [Mary o] [hannin da to] omotteiru.
John NOM [Mary ACC] [culprit COP-PRES comP] think-PROG-PRS
'John thinks Mary to be the culprit.'

Embedded subjects marked by the genitive *-in* (or its allomorphs *-i* and *-gin*) appear to be restricted to object clauses (13a), as illustrated by the ungrammaticality of the complementiser clause (13b), the converb clause (13c) and the adverbial clause (13d).

- (13) a. Bi **Bold-in** ene deeremchn-ig bari-sn-ig har-san.
I Bold-GEN this thief-ACC catch-PST-ACC see-PST
'I saw Bold's catching of this thief.'
- b. *Bi **Bold-in** ene deeremchn-ig bari-san gej hel-sen.
I Bold-GEN this thief-ACC catch-PST COMP say-PST
Int.: 'I said that Bold caught this thief.'
- c. *Bi ene deeremchn-i bari-gd-tal hulee-sen.
I this thief-GEN catch-PASS-CVB wait-PST
Int.: 'I waited until this thief was caught.'
- d. *Bi Tuya-**gin** bagsh-tai uulz-san-i daraa yav-san.
I Tuya-GEN teacher-COM meet-PST-GEN after go-PST
Int.: 'I left after Tuya met with the teacher.'

The non-subject arguments of the complementiser, converb and adverbial clauses are encoded like in main clauses.

- (14) a. Bold Tuya(-g) bagsh-tai uulz-san gej hel-sen.
Bold Tuya-ACC teacher-COM meet-PST COMP say-PST
'Bold said that Tuya met with the teacher.'
- b. Bold Tuya(-g) bagsh-tai uulz-tal hulee-sen.
Bold Tuya-ACC teacher-COM meet-CVB wait-PST
'Bold waited until Tuya met with the teacher.'
- c. Bi Tuya(-g) bagsh-tai uulz-san-i daraa yav-san.
I Tuya-ACC teacher-COM meet-PST-GEN after go-PST
'I left after Tuya met with the teacher.'

To sum up, while all four types of subordinate constructions (i) express non-subject arguments like in a main clause and (ii) allow for accusative or morphologically unmarked subjects, only the object clauses allow for genitive subjects.

In the next section we explore in more detail the properties of subordinate constructions with accusative subjects. In particular, we investigate the position of the accusative and morphologically unmarked subjects in constituent structure, and then we turn to the question of what grammatical function these embedded subjects have.

4. Constituent formation with accusative subjects

Many arguments for a subject-to-object raising analysis in English (cf. Postal, 1974) as well as Japanese (cf. Kuno, 1976) aim at showing that the embedded accusative subject does not form a constituent with the embedded predicate, but is a constituent of the matrix (or superordinate) clause. In this section we show that while some embedded accusative subjects may be analysed as constituents of the matrix clause, other accusative NPs cannot easily be analysed the same way. In some cases we do not just lack evidence that the accusative NP has moved to the object position of the higher verb – we have evidence that the accusative subjects are constituents of the embedded clause.

4.1. Adverbial clauses

As a first instance in which accusative subjects cannot easily be analysed as raised to object, consider sentence (15):

- (15) Bi ene deeremchn-ig bari-gd-san-i daraa ir-sen.
I this thief-ACC catch-PASS-PST-GEN after come-PST
'I came after this thief was caught.'

In this sentence the postposition *daraa* ('after') selects genitive case on its complement *ene deeremchnig barigdsani*, and together the postposition and its complement are an (optional) adverbial modifier. If extraction out of an adverbial modifier is blocked by the adjunct island constraint (cf. Ross, 1967) then the accusative NP cannot be analysed as having raised to object position of the matrix verb. Under this assumption, the only viable option is to assume that despite its accusative case the NP *ene deeremchnig* ('this thief') is a constituent of the adverbial modifier.

This example also illustrates another important difference between Japanese and Mongolian accusative embedded subjects, since the equivalent Japanese sentence is ungrammatical (Ryosuke Shibagaki, personal communication):

- (16) a. *John ga Bill o ki-ta ato it-ta.
 John NOM Bill ACC come-PST after go-PST
 Int.: 'John went after Bill came.'
- b. John ga Bill ga ki-ta ato it-ta.
 John NOM Bill NOM come-PST after go-PST
 'John went after Bill came.'

Next we look at the position of matrix adverbs relative to accusative NPs, and show that while in some cases the accusative NP can precede the matrix adverb, and thus be outside the embedded clause, this is not always possible, suggesting again the existence of accusative NPs which should be analysed as constituents of the embedded structure.

4.2. Position of adverbs

One way of testing whether subjects of embedded clauses are constituents of the matrix clause is to insert a matrix adverb after it. If this is possible, it indicates that the embedded subject is outside the embedded clause, and thus a constituent of the matrix clause. For example, Kuno (1976) showed that in Japanese a matrix adverb can be placed after an ACC-marked subject of an embedded clause (17a), but not after a NOM-marked embedded subject (17b).

- (17) a. Yamada wa Tanaka o, **orokanimo**, tensai da to omotte ita.
 Yamada TOP Tanaka ACC stupidly genius is that thinking was
 'Stupidly, Yamada thought that Tanaka was a genius.'
- b. *Yamada wa Tanaka ga, **orokanimo**, tensai da to omotte ita.
 Yamada TOP Tanaka NOM stupidly genius is that thinking was
 Int.: 'Stupidly, Yamada thought that Tanaka was a genius.'

Analogous observations can be made for Mongolian. The modifier *haramsaltai-gaar* ('sadly' or 'with sadness') of the matrix verb in (18a) can occur after the accusative-marked subject *Tuya-g* of the embedded clause, but not after the morphologically unmarked subject (18b).

- (18) a. Bold Tuya-g **haramsaltai-gaar** teneg gej bod-son.
 Bold Tuya-ACC sadly-INST stupid COMP think-PST
 'Bold thought with sadness that Tuya is stupid.'
- b. *Bold Tuya **haramsaltai-gaar** teneg gej bod-son.
 Bold Tuya sadly-INST stupid COMP think-PST
 Int.: 'Bold thought with sadness that Tuya is stupid.'

What complicates the picture in Mongolian are contrasts like in (19). In (19a) the adverb *margaash* ('tomorrow') is unambiguously modifying the matrix verb (since the embedded verb is in the past). Note, however, that this matrix adverb cannot be positioned after the accusative embedded subject *Tuyag*, as shown by (19b).

- (19) a. Bold **margaash** Tuya-g yav-sn-ig med-eh bol-no.
 Bold tomorrow Tuya-ACC go-PST-ACC know-INF will-FUT
 'Tomorrow, Bold will know that Tuya left.'
- b. *Bold Tuya-g **margaash** yav-sn-ig med-eh bol-no.
 Bold Tuya-ACC tomorrow go-PST-ACC know-INF will-FUT
 Int.: 'Tomorrow, Bold will know that Tuya left.'

An anonymous reviewer suggested that the reason for the ungrammaticality of (19b) could be that adverbs simply cannot occur after direct objects. So if in (19b) *Tuyag* is a direct object of the matrix verb, and matrix adverbs cannot occur after direct objects, the ungrammaticality of (19b) would follow. But since matrix adverbs can occur after the direct object (20), the ungrammaticality of (19b) cannot be derived this way.

- (20) Bold Tuya-g **uchigdur** har-san.
 Bold Tuya-ACC yesterday see-PST
 'Bold saw Tuya yesterday.'

So it appears that in some cases (18a) the accusative NP can precede a matrix modifier, while in other cases (19b) it cannot. The precise conditions under which this is possible await further investigation. Our main point is that the evidence used to support the subject-to-object raising analysis in some cases is missing in other cases, thus casting considerable doubt on the idea that all accusative marked subjects are raised to object position. In the next section we will show that embedded accusative subjects lack properties which direct objects have, suggesting that despite the accusative form of these NPs, they are not direct objects of the main clause, but subjects of the subordinate clauses.

5. Grammatical function of accusative subjects

Having discussed the position of embedded accusative subjects in the constituent structure, we now turn to the question whether these embedded accusative subjects should be analysed as direct objects of the superordinate clause. With arguments from passivisation and causativisation we aim to show that accusative subjects of an embedded clause should not be analysed as direct objects of the matrix clause.

5.1. Passivisation

One of the reasons for a subject-to-object raising analysis in English is that raised NPs can be passivised.

- (21) a. John believed her to be clever.
b. She was believed to be clever.

The possibility of passivising some raised NPs does not mean that every raised NP can be passivised. As pointed out by an anonymous reviewer, it is not uncommon for languages to have some restriction on the passivisation of raised NPs, as witnessed by the following contrast:

- (22) a. John heard me sing a song.
b. *I was heard sing a song.

So while in English there is clear evidence that at least some raised NPs can passivise and thus show clear properties of direct objects, in Mongolian embedded accusative subjects do not passivise, as shown by the ungrammaticality of (23b) which is the result of passivising the embedded accusative subject in (23a).

- (23) a. Bi ene deeremchin(-ig) bari-gd-san-ig med-sen.
I this thief-ACC catch-PASS-PST-ACC know-PST
'I knew that this thief was caught.'
b. *Ene deeremchin bari-gd-san-ig med-egd-sen.
this thief catch-PASS-PST-ACC know-PASS-PST
Int.: 'This thief was known to have been caught.'

Therefore, unlike in English, passivisation cannot be used to argue that accusative embedded subjects have direct object properties. On the contrary, it can be used to show that accusative embedded subjects lack this direct object property.

What can be passivised instead is the object clause as a whole, as shown in (24).

- (24) a. Bi ene deeremchin(-ig) bari-gd-san-ig med-sen.
I this thief-ACC catch-PASS-PST-ACC know-PST
'I knew that this thief was caught.'
b. Ene deeremchin bari-gd-san ni med-egd-sen.
this thief catch-PASS-PST 3.POSS know-PASS-PST
'That this thief was caught was known.'

While matrix subject NPs are morphologically unmarked, the passivised object clause cannot be left morphologically unmarked, but must be marked with the particle *ni*, which in addition to its function as third person possessive suffix may also function as topic marker (cf. Bittigau (2003:174)).

What is crucial for our point (that accusative embedded subjects cannot be passivised) is that the whole clause *Ene deeremchin bari-gd-san ni* in (24b) is the subject, and not just the NP *ene deeremchin* 'this thief'. Next we give three additional reasons why *ene deeremchin* should not be analysed as a matrix subject.

First, it may occur in the genitive case (25a), whereas matrix subjects cannot (25b).

- (25) a. Ene deeremchin-i bari-gd-san ni med-egd-sen.
 this thief-GEN catch-PASS-PST 3.POSS know-PASS-PST
 'That this thief was caught was known.'
- b. *Ene deeremchin-i bari-gd-san.
 this thief-GEN catch-PASS-PST
 Int.: 'This thief was caught.'

Secondly, this constituent cannot be placed in front of the matrix predicate (26a), whereas matrix subjects can (26b).

- (26) a. *Bari-gd-san ni **ene deeremchin(-i)** med-egd-sen.
 catch-PASS-PST 3.POSS this thief-GEN know-PASS-PST
 Int.: 'That this thief was caught was known.'
- b. Ene deeremchn-ig zagdaa bari-san.
 this thief-ACC police catch-PST
 'The police caught this thief.'

Thirdly, this constituent may occur after an adverb modifying the embedded predicate, indicating that it is indeed part of the object clause.

- (27) Uchigdur ene deeremchin(-i) bari-gd-san **ni** med-egd-sen.
 yesterday this thief-GEN catch-PASS-PST 3.POSS know-PASS-PST
 'That this thief was caught yesterday was known.'

So like in Japanese (Sells, 1990), accusative embedded subjects in Mongolian cannot be passivised, casting considerable doubt on a raising to object analysis, which at least for English has been in part motivated by the fact that some of these accusative NPs can be passivised.

5.2. Causativisation

Sells (1990) has pointed out that due to the 'Double-o constraint', which bans a single clause from having two (or more) direct objects, the accusative subject of an embedded clause cannot be analysed as a direct object of the matrix clause if the embedded clause itself is a direct object of this matrix clause. The same argument applies in Mongolian, too. If, as argued in the previous section, the subordinate clause in (23a) has the function of direct object, then we have in Mongolian too an additional reason to believe that the embedded accusative subject cannot also be a direct object. This is because, parallel to Japanese, it can be shown independently that Mongolian clauses cannot have more than one direct object.

If a verb has an oblique object (28a), and we increase the valency of the verb by suffixing the causative marker *-uul* (28b), then the causee argument is a direct object.

- (28) a. **Bi** bagsh-tai uulz-san.
 I teacher-COM meet-PST
 'I met with the teacher.'
- b. Bold **namaig** bagsh-tai uulz-**uul**-san.
 Bold I.ACC teacher-COM meet-CAUS-PST
 'Bold let **me** meet with the teacher.'

If the verb already has a direct object, as in (29a), then the causee cannot be a direct object (29b), but has to be an oblique object (29c).

- (29) a. Bi ene nom-ig unsh-san.
 I this book-ACC read-PST
 'I read this book.'
- b. *Bold namaig ene nom-ig unsh-uul-san.
 Bold I.ACC this book-ACC read-CAUS-PST
 Int.: 'Bold let me read this book.'

- c. Bold *nadaar* ene nom-ig unsh-uul-san.
 Bold I.INST this book-ACC read-CAUS-PST
 'Bold let me read this book.'

This ban against two direct objects holds irrespective of the morphological case, as shown by the fact that (30b) is ungrammatical, although the direct object *nom* is in the morphologically unmarked NOM case.

- (30) a. **Bi** nom unsh-san.
 I book read-PST
 'I read a book.'
- b. *Bold **namaig** nom unsh-uul-san.
 Bold I.ACC book read-CAUS-PST
 Int.: 'Bold let me read a book.'
- c. Bold **nadaar** nom unsh-uul-san.
 Bold I.INST book read-CAUS-PST
 'Bold let me read a book.'

If, as we have argued, the object clause in (31a) is a direct object and a predicate can have at most one direct object, we predict that if the matrix verb is causativised, the causee argument is not a direct object. This prediction is confirmed (31b).

- (31) a. Bi ene deeremchin(-ig) bari-gd-san-ig hel-sen.
 I this thief-ACC catch-PASS-PST-ACC say-PST
 'I said that this thief was caught.'
- b. *Tuya **namaig** ene deeremchin(-ig) bari-gd-san-ig hel-uul-sen.
 Tuya I.ACC this thief-ACC catch-PASS-PST-ACC say-CAUS-PST
 Int.: 'Tuya let me say that this thief was caught.'

Instead, the causee argument has to occur in the instrumental form.

- (32) Tuya **nadaar** ene deeremchin(-ig) bari-gd-san-ig hel-uul-sen.
 Tuya I.INST this thief-ACC catch-PASS-PST-ACC say-CAUS-PST
 'Tuya let me say that this thief was caught.'

So our analysis of the object clause as a direct object and of the embedded accusative subject as not having raised to object is corroborated by this prediction.

But if there is a ban against two direct objects in Mongolian, how does this square with the existence of control verbs which have a direct object NP as well as an object clause marked with accusative *-ig*?

- (33) Bi Bold-ig Tuya-g uns-eh-ig yatga-san.
 I Bold-ACC Tuya-ACC kiss-INF-ACC persuade-PST
 'I persuaded Bold to kiss Tuya.'

It is clear that the NP *Boldig* is a direct object of the matrix verb *yatgasan*, so if there is reason to assume that the *-ig* marked clause is also a direct object, then this would constitute an exception to the ban against two direct objects.

Despite the accusative marking of the clausal object of the control verb *yatgasan* ('persuaded'), the sentence (33) is not a convincing counterexample to the ban against two direct objects in Mongolian. While direct objects have to be questioned with *yu-g* ('what-ACC') as shown by (34), the object clause of a control verb cannot be so questioned (35a) – it must be questioned with *yu-nd* ('what-DAT'), as illustrated in (35b).

- (34) Tuya yu-g med-sen be?
 Tuya what-ACC know-PST Q
 'What did Tuya know?'
- (35) a. *Tuya Bold-ig yu-g yatga-san be?
 Tuya Bold-ACC what-ACC persuade-PST Q
 Int.: 'What did Tuya persuade Bold of?'

- b. Tuya Bold-ig yu-nd yatga-san be?
 Tuya Bold-ACC what-DAT persuade-PST Q
 ‘What did Tuya persuade Bold of?’

So despite the morphological marking of the subordinate clause, there is reason to assume that the subordinate clause of a control verb does not function as a direct object but as an indirect object.

To sum up, in this section we have first shown that, unlike direct objects, embedded accusative subjects do not passivise (instead the whole subordinate clause can be shown to passivise), and secondly that a verb which already has an object clause as direct object cannot have a second direct object (as this would violate one of the generalisation underlying causativisation, namely that a clause cannot have more than one direct object).

6. Binding

As a final argument against analysing embedded accusative subjects as raised direct objects, we will show that the binding properties of direct objects differ from the binding properties of embedded accusative subjects. This difference would remain unexplained if we assumed that embedded accusative subjects have been raised to object position.

6.1. Binding the possessor of a secondary predication

The possessor (or bearer) of a secondary predication is indicated by a suffix attached to the predication. If the secondary predication is suffixed with the reflexive possessive marker *-aa*, then the possessor of the secondary predication must be the subject (36a), whereas if it is followed by the possessive particle (*chin* ‘2.POSS’ or *ni* ‘3.POSS’) the possessor must not be the subject (36b).

- (36) a. Bold Tuya-g sogtuu bai-hd-**aa** uns-sen.
 Bold Tuya-ACC drunk be-CVB-REFL.POSS kiss-PST
 Only: ‘Drunken Bold kissed Tuya.’
 b. Bold Tuya-g sogtuu bai-had **ni** uns-sen.
 Bold Tuya-ACC drunk be-CVB 3.POSS kiss-PST
 Only: ‘Bold kissed drunken Tuya.’

The first binding difference between direct objects and embedded accusative subjects is that the possessor of a secondary predication marked with *ni* can be the direct object of the control verb in (37a), but it cannot be an embedded accusative subject (37b).

- (37) a. Bat Bold-ig Tuya-g uns-eh-ig sogtuu bai-had **ni** yatga-san.
 Bat Bold-ACC Tuya-ACC kiss-INF-ACC drunk be-CVB 3.POSS persuade-PST
 Only: ‘Bat persuaded drunken Bold to kiss Tuya.’
 b. *Bat Bold-ig Tuya-g uns-sen-ig sogtuu bai-had **ni** med-sen.
 Bat Bold-ACC Tuya-ACC kiss-PST-ACC drunk be-CVB 3.POSS know-PST
 Int.: ‘Bat knew that drunken Bold kissed Tuya.’

This difference can be explained if we assume that despite its accusative form, *Boldig* in (37b) is not a direct object of the matrix verb, but the subject of the embedded verb – given that the secondary predication is outside the embedded clause, its possessor cannot be a non-subject argument of the embedded predicate, but must be a non-subject argument of the matrix predicate; and since *Boldig* is not a direct object of the matrix clause, there is no available possessor, resulting in ungrammaticality.

6.2. Binding of embedded objects suffixed with *-aa*

The second binding difference between direct objects and embedded accusative subjects is that embedded accusative subjects block the matrix subject from binding the possessor of an *-aa*-marked embedded direct object (38), whereas direct objects of control verbs do not (39). So in (38) the possessor of the *-aa*-marked embedded direct object cannot be the matrix subject – it can only be the embedded accusative subject, whereas in (39) both the direct object and the matrix subject of the control verb can bind the possessor of the *-aa*-marked embedded direct object:

- (38) Tuya Bold-ig ah-ig-**aa** zod-oh-ig har-san.
 Tuya Bold-ACC older.brother-ACC-REFL.POSS hit-INF-ACC see-PST
 ‘Tuya saw Bold_i hit his_i older brother.’
 Not: ‘Tuya_j saw Bold hit her_j older brother.’

- (39) Tuya Bold-ig ah-ig-aa zod-oh-ig yatga-san.
 Tuya Bold-ACC older.brother-ACC-REFL.POSS hit-INF-ACC persuade-PST
 'Tuya persuaded Bold_i to hit his_i older brother.'
 Or: 'Tuya_j persuaded Bold to hit her_j older brother.'

It is unclear how this puzzling asymmetry in the binding possibilities of the reflexive possessive can be explained. One way of looking at this puzzle is that the long-distance binding is blocked by an embedded NP having only the function of embedded clause subject. If the embedded NP is both subject of the embedded clause and direct object of the matrix clause, then long-distance binding is possible, whereas if the embedded NP is only the subject of the embedded clause, then long-distance binding is not possible. To the extent that this speculation can be substantiated we have another reason to doubt that the NP *Boldig* in (38) is a direct object.

What these examples indicate is that embedded accusative subjects differ from direct objects in their binding properties, so that this difference would be left unexplained if embedded accusative subjects are analysed as (raised) direct objects.

7. Why accusative subjects?

If accusative embedded subjects cannot always be analysed as constituents of the matrix clause, and if they do not display any behavioural properties of direct objects, then a movement analysis in terms of subject-to-object raising does not appear viable, and we need an alternative explanation both for the position and for the accusative marking of these subjects.

As we pointed out in subsection 4.2, the precise conditions under which embedded subjects can scramble out of the subordinate clause need further investigation. But why would a verb-final language like Mongolian and Japanese develop accusative marking of embedded subject arguments at the risk of a temporary (online) misinterpretation of such an NP as the object of the matrix clause?

Before we sketch our explanation it is worth having a brief look at how the accusative marking on embedded subjects in Japanese has been explained. *Sells (1990)* points out (i) that accusative embedded subjects in Japanese occur preferably with stative unaccusative predicates, and moreover (ii) that independently of this phenomenon arguments can appear showing their 'deep' or 'logical' relations directly in the case marking. So, he concludes, the accusative on embedded subjects is also an instance of 'semantic case marking'.⁴ But as we have shown in section 3, Mongolian accusative embedded subjects are not restricted to stative unaccusative predicates. Therefore, accusative marking of embedded subjects in Mongolian cannot be explained analogously in terms of semantic case marking.

To address this question of why embedded subjects are marked as accusative, we investigated the conditions under which accusative marking is preferred to nominative marking of embedded subjects, and found that the preference for accusative over nominative embedded subjects depends on the interaction of two factors. In *Klein et al. (in press)* and *Guntsetseg (in press)* we found that irrespective of the type of subordinate clause, embedded accusative subjects were judged significantly better than embedded (morphologically) unmarked subjects, if (i) the embedded subjects immediately followed the matrix subjects, and if (ii) the embedded subjects were high on the referentiality scale. We therefore proposed that the NOM/ACC alternation on embedded subjects in Mongolian is an instance of differential (embedded) subject marking – the embedded subject is marked as accusative in order to distinguish it morphologically from the matrix subject.

Four things are worth emphasising about this case alternation. Firstly, it does not distinguish arguments of the same clause (as in typical differential subject or object marking), but arguments of different clauses and of different predicate-argument frames. Secondly, it does not distinguish subjects from objects, but matrix subjects from embedded subjects. Together these two points call for an extension of the functions of case – case does not just indicate the grammatical or semantic relation between NPs and their heads, but can also be used to distinguish a matrix from an embedded subject. Thirdly, the embedded subject in (40) is preferably marked as accusative, despite the fact that the unmarked embedded subject in (41) cannot actually be interpreted as the matrix subject.

- (40) Bi ene deeremchn-ig bari-gd-san-i daraa ir-sen.
 I this thief-ACC catch-PASS-PST-GEN after come-PST
 'I came after this thief was caught.'
- (41) Bi ene deeremchin bari-gd-san-i daraa ir-sen.
 I this thief catch-PASS-PST-GEN after come-PST
 'I came after this thief was caught.'
- NOT: 'This thief came after I was caught.'

So it appears that the need to morphologically distinguish the grammatical roles of the adjacent subject NPs holds despite the fact that there is in principle no ambiguity. And fourthly, this preference for accusative marking holds despite the risk of

⁴ See also *Butt (2006)* for an exposition of this notion.

misinterpreting the NP *ene deeremchnig* as a direct object of the matrix clause. We emphasise the last two points, because they make the preference for accusative marking on embedded subjects all the more astonishing.

8. Conclusion

The aim of this paper was to investigate the properties of embedded accusative subjects in order to address the question whether these arguments can be analysed as instances of subject-to-object raising. We have shown first that unlike genitive subjects, accusative subjects are not restricted to object clauses, but can occur even in adverbial clauses. Secondly, we have shown that while it is possible to analyse some instances of accusative subjects as being constituents of the matrix clause, this is by no means always possible. And thirdly, we have shown that despite the accusative form, there are a number of reasons why they should not be analysed as direct objects: they do not passivise, they have different binding properties, and due to the ban against two direct objects they cannot also be direct objects in at least some constructions which can be shown to already have a direct object.

We therefore conclude that the accusative marking on embedded subjects is a genuine instance of differential subject marking, and suggest that the use of the accusative has extended to indicate that the NP it marks is not the matrix subject. What this means is that the accusative is not only used to distinguish arguments within a clause but also arguments across clause boundaries.

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