

Two Types of Case Alternation in Mongolian*

Dolgor Guntsetseg & Udo Klein

University of Stuttgart

Heilbronnerstraße 7, 70174 Stuttgart, Germany

dolgor.guntsetseg@ling.uni-stuttgart.de, udo.klein@ling.uni-stuttgart.de

Abstract

In modern Mongolian there are two major case alternations involving the accusative suffix: direct objects as well as the subjects of (some) embedded clauses can occur either in the morphologically unmarked form (nominative) or in the accusative form. The first case alternation is well-known cross-linguistically as the phenomenon of “differential object marking”. The second alternation we will refer to as “differential embedded subject marking”, to avoid confusing it with the differential marking of matrix subjects. In this paper, we present the results of a questionnaire, which was conducted to investigate the conditions governing the case alternation on subjects in embedded object clauses, and propose that the accusative case in Mongolian has the function of distinguishing the argument to which it attaches from the matrix subject.

Keywords: case, case function, differential object marking, differential subject marking, Mongolian, Altaic.

1. Introduction

Modern Mongolian exhibits two types of case alternation: Differential Object Marking (DOM) and Differential Embedded Subject Marking (DeSM). DOM refers to the cross-linguistic phenomenon that some direct objects are accusative-marked whereas others are not, and DeSM refers to case alternations of subjects of embedded clauses. Here we will focus on the alternation between nominative versus accusative for

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both DOM and DeSM (other alternations are also possible for DSM).

In this paper, we will discuss these case alternations from the perspective of the functions of case (cf. Comrie, 1989; de Hoop & Narasimhan, 2005, de Hoop and Malchukov, 2008). According to de Hoop and Malchukov (2008) “[t]he identifying strategy makes use of case morphology to encode specific semantic/pragmatic information about the nominal argument in question”, whereas “[t]he distinguishing strategy is a more specific strategy that is used for distinguishing between the two core arguments of a transitive clause, i.e. the subject and the object”.

Our proposal is that the function of the accusative case in Mongolian is clearly distinguishing; one could even say that it functions as a “non-(matrix-)subject-marker”. DOM in Mongolian indicates distinguishing function of the accusative case. This indication is supported by our data about DSM in Mongolian. Therefore, we assume that in Mongolian the accusative case distinguishes not only between two different arguments in the same clause but it also distinguishes between the two adjacent subjects across clause boundaries which also have similar features in terms of referentiality and animacy.

Section 2 introduces Mongolian as a language of the Altaic language family including its typological characteristics. In section 3, we will discuss each of the two case alternations. We will also derive our hypothesis about possible conditioning factors like adjacency and relative referentiality/animacy which trigger the accusative marking of embedded subjects. The experimental survey which we designed to test our hypotheses will be discussed with its results in section 4. Section 5 gives a summary and outlines the intended goals for further research.

2. Preface to Mongolian

Modern Mongolian is spoken in Mongolia by its estimated 3 million habitants. It is also spoken, at least understood by other Mongolic minorities in Buryatia, western Mongolia and by the peoples in the autonomous province of Inner Mongolia in China. We will focus on Khalkha Mongolian, the general dialect of Mongolian and also the official language in Mongolia, which we will refer to in the present paper as “Mongolian”.

In the literature (Pope, 1951; Dörfer, 1966; Binnick, 1979), Mongolian is usually assigned to the Altaic language family, along with the Turkic and Manchu-Tungusic languages, because of its typological similarities even to Japanese and Korean. In spite

of the common typological characteristics among these languages, this genetic relation is still debatable. They are also often referred to as the Altaic Sprachbund because of their regional language contacts over a long period.

The typological characteristics of Mongolian, which it shares with other Altaic languages, are vowel harmony, agglutinated morphology, SOV-structure and the absence of a gender system. On the other hand, there are also some fine morpho-syntactic differences among the Altaic languages, e.g. subject-verb agreement which is absent in Mongolian, but present in Turkish.

3. Case alternations in Mongolian

3.1. Functions of case-marking

It is broadly argued that there are two functions of case marking: **indexing and distinguishing** (Comrie, 1989; de Hoop & Narasimhan 2005, Malchukov, 2005). According to the indexing function, the overt case marking indicates some specific information about the thematic role of the arguments under consideration. For example, ergative case expresses agentivity, accusative case concerns patient, and so on. De Hoop & Narasimhan (2005) assume that overt case marking in its indexing function is associated with argument strength. That is, the strong arguments which are prototypical and highly prominent take case suffixes.

Another function of case marking is to distinguish between different arguments, e.g. between the agents and patients. Overt case marking on one of these arguments is sufficient for distinguishing them. If only patient-like arguments of transitive clauses are marked morphologically, while other arguments of transitive and intransitive clauses are morphologically unmarked, this results in a nominative-accusative case alignment. If on the other hand only patient-like arguments of transitive clauses are marked morphologically, while the other arguments of transitive and intransitive clauses are morphologically unmarked, this results in an ergative-absolutive case alignment. According to de Hoop & Narasimhan (2005), arguments are to be differentiated if they are close to each other in argument strength. That is, if both arguments show similar features in terms of their referentiality and animacy, they must be distinguished by overt case marking on one of these.

We will propose in this paper that the accusative case in Mongolian has clearly the distinguishing function. Moreover, while by DOM in Mongolian it is distinguished between the subjects and objects, our Mongolian data about case alternation of subjects

in embedded clauses show that overt case marking differentiates between two subjects in a complex clause and supports our assumption of a distinguishing function. This will be discussed in detail in the following sections.

3.2. Differential Object Marking²

In Mongolian, the direct objects in transitive clauses are marked differently morphologically. They can either take the accusative suffix *-(i)g* or occur in unmarked nominative, a form, which is morphologically zero. This phenomenon of DOM appears in many languages and some factors which trigger DOM cross-linguistically are pointed out in the literature (e.g. Bossong, 1985; Aissen, 2003 among others). According to these authors, DOM is triggered mainly by referentiality, animacy and topicality. DOM in Mongolian mainly patterns according to the Referentiality Scale in (1), which is suggested by Aissen (2003, p. 437).

(1) **pers. pro. > prop. names > def. NPs > indef. spec. NPs > indef. non-spec. NPs**

If the direct objects are realized by personal pronouns, proper names and definite noun phrases, the accusative marking is obligatory, whereas accusative marking on weak indefinite and incorporated³ noun phrases is ungrammatical, as shown in (2) and (3).

(2)	<i>Bi tuun*(ig)/Tuya*(-g)/ene uul*(-ig)</i>	<i>har-san.</i>
	I 3.PS.ACC/Tuya-ACC / this mountain-ACC	see-PST
	“I saw him/her/Tuya/ this mountain.”	high in referentiality

(3)	<i>Bi zahia bich-sen.</i>
	I letter.NOM write-PST
	“I wrote a letter.”
	low in referentiality

Indefinite noun phrases show an interesting variation in Mongolian DOM. Some indefinite noun phrases can but do not have to be marked with the accusative case, in other words, it is optional. This optionality seems, at first glance, to depend on the specific feature of the direct objects, as illustrated in (4), similar to Turkish (Enç 1991,

² See Guntsetseg (to appear) for detailed descriptions about DOM In Mongolian.

³ Incorporated noun phrases build a semantic unit together with the verb and do not introduce discourse referents. Cf. Dayal (2003) and Öztürk (2005) for detailed information.

von Heusinger & Kornfilt 2005).

- (4) a. *Bold neg ohin uns-sen.*
Bold a girl.NOM kiss-PST
“Bold kissed a girl.”
b. *Bold neg ohin-ig uns-sen.*
Bold a girl-ACC kiss-PST
“Bold kissed a (certain) girl.”

In (4b), the accusative case requires a specific interpretation; it is a certain girl who is kissed by Bold, whereas in (4a) is unclear whether or not a specific girl is meant. In other words, in (4a) *neg ohin* can be interpreted either as specific or as non-specific. Since in both (4a) and (4b) the need for distinguishing the two arguments is the same, it the accusative case is less likely to be used to distinguish, and more likely to be used to index the specificity of the argument.

On the other hand, there are also cases where the accusative case on indefinite noun phrases with *neg* is hardly acceptable, despite having a specific reading, as illustrated in (5).

- (5) *Bold neg nom(*²-ig) unsh-san.*
Bold a book-ACC read-PST
“Bold read a book.”

The ungrammaticality of accusative marking in (5) could be due either to the fact that there is no need to distinguish the arguments (the distinction is guaranteed by the fact that books cannot read, but can only be read), or to the fact that what the accusative indexes is only the specificity of human arguments.

Generally speaking, it is difficult to decide whether DOM in Mongolian has the indexing or distinguishing function, since the set of arguments which would be morphologically marked in each case would overlap considerably. Thus DOM appears to be compatible with both a distinguishing function of the accusative as well as with an indexing function. In order to find evidence for distinguishing more clearly the function of the accusative in Mongolian, we turn to the differential marking of subjects of embedded object clauses.

3.3. *Differential Embedded Subject Marking*

Another type of case alternation involving the accusative in Mongolian is that subjects of embedded clauses (further “embedded subject”, abbr. S_E) are marked in different cases. This alternation depends on the type of the embedded clause. In relative clauses,

subjects can occur in nominative, genitive, and in few cases, even in ablative form, as illustrated in (6). Subjects of embedded temporal clauses are marked either with accusative case or they can occur morphologically unmarked (in nominative form), as shown in (7).

- (6) *Bi yerunhiilegch/-in/-uus bich-sen zahia-g unsh-san.*
 I president.NOM/-GEN/-ABL write-PST letter-ACC read-PST
 “I read the letter which the president wrote.”

- (7) *Bold/-ig ir-sn-ii daraa bi yav-na.*
 Bold.NOM/-ACC come-PST-GEN after I go-FUT
 “I will go after Bold comes.”

For our discussion in the present paper, we will focus on the case alternation of subjects in embedded object clauses. Before we begin with the investigation of the conditions underlying this alternation, we point out some important morphosyntactic features of embedded object clauses. Firstly, the object clauses are always suffixed with the accusative case.

- (8) *Bi ene oyutan haana amidar-dag-ig med-ne.*
 I this student where live-HAB-ACC know-PRS
 “I know where this student lives.”

Secondly, there are two possibilities where the embedded clause can occur within a complex clause. Since Mongolian is a verb final language, the embedded clause must occur before the main verb, but it can occur either after the subject of the main clause (further “matrix subject”, abbr. SM) or before it. These two possibilities are represented in (9). Sentence (8) has the structure (9a), and (8’) has the form (9b).

- (9) a. **SM [SE (OE) VE] VM**
 b. **[SE (OE) VE] SM VM**
 (8’) *Ene oyutan haana amidar-dag-ig bi med-ne.*
 this student where live-HAB-ACC I know-PRS
 “I know where this student lives.”

The subjects of the embedded object clauses can occur in nominative, accusative and also in genitive, as shown in our example (10). The case alternation is still present, when the whole clause has the form like in (9b).

- (10) a. *Bi ene oyutan haana amidar-dag-ig med-ne.*
 I this student.**NOM** where live-HAB-ACC know-PRS
 “I know where this student lives.”
- b. *Bi ene oyutn-ig haana amidar-dag-ig med-ne.*
 I this student-**ACC** where live-HAB-ACC know-PRS
 “I know where this student lives.”
- c. *Bi ene oyutn-i haana amidar-dag-ig med-ne.*
 I this student-**GEN** where live-HAB-ACC know-PRS
 “I know where this student lives.”

We will focus on the alternation between nominative and accusative because they seem to compete with each other, also in temporal clauses as in (6). The question here is: why is there an alternation and when do the embedded subjects take the accusative case?

At this point, we should mention that this kind of case alternation of subjects is much different from other types of differential subject marking, for example in ergative languages. In these languages the ergative cases express the agentivity and control feature of the subjects in a simple clause, possibly with an indexing function.

In Mongolian we propose that the accusative case attached to the embedded subjects has the function to distinguish it from the matrix subjects. When the whole complex clause has the form in (9a), both subjects are immediately in adjacent position, which might trigger accusative marking of the second noun phrase in order to signal: I am not the matrix subject, or I do not belong to the main clause.

Another factor would be the relationship of both subjects with respect to their position on the referentiality and animacy scales. From the perspective of distinguishing function, if the embedded subjects are higher in referentiality and animacy than the matrix subjects, then the accusative marking of embedded subjects is necessary.

Based on these observations, we have hypothesized the following factors for accusative marking on embedded subjects:

- **Hypothesis of adjacency:** If the matrix and embedded subjects are immediately adjacent like in (9a), then the second noun phrase should get the accusative case, in order to signal it is not the matrix subject.
- **Hypothesis of relative referentiality and animacy:** if embedded and matrix subjects differ in the referentiality and animacy features, such that the embedded subjects are higher on these scales, the accusative marking of embedded subjects is clearly preferred.

We tested our hypotheses with a web questionnaire, which will be discussed in detail in the next section.

4. Web Questionnaire

4.1. Design and method

The 156 participants were all native speakers of Mongolian, and most of them accessed the questionnaire website by means of an advertisement link placed on a popular Mongolian website (<http://www.medeel.com>). The 54 sentences were distributed over 6 questionnaires, so that each participant saw only 9 out of 54 conditions/items. The test sentences were mixed with an equal number of filler sentences in the questionnaires. We collected 26 judgements per item via a web questionnaire, using the WEBEXP2 software, where the participants had to choose 1 (very bad), 2, 3, or 4 (very good), as a response to how good the sentence displayed sounded.

The design of the questionnaire was as follows

Dependent variable: acceptability judgement

Independent variable:

- a. **Case:** nominative vs. accusative
- b. **Adjacency:**
 - 1: **SM SE** matrix and embedded subjects are immediately adjacent
 - 2: **SM Adv SE** matrix and embedded subjects are separated by an Adverb
 - 3: **SE...SM** matrix subject follows the embedded clause
- c. **Relative referentiality:**
 - 1: **SM > SE** matrix subject is higher on referentiality scale than embedded subject
 - 2: **SM = SE** matrix and embedded subjects have equal referentiality
 - 3: **SM < SE** matrix subject is lower on referentiality scale than embedded subject
- d. **Relative animacy:**
 - 1: **SM > SE** matrix subject is higher on animacy scale than embedded subject
 - 2: **SM = SE** matrix and embedded subjects have equal animacy
 - 3: **SM < SE** matrix subject is lower on animacy scale than embedded subject

Some of the test sentences used in the web questionnaire will be presented below. There were 54 (2x3x3x3) conditions and accordingly 54 test items, that is, one lexicalization per condition. The test items divided into 6 different questionnaires. Each subject saw 9 of them. The ratio between the test items and the control sentences was 1:1. There were 26 judgements per item.

4.2. Results and interpretation

The data were analysed by means of a crossed 4-way between-subjects analysis of variance. We will discuss only selected results and have attached all results in the appendixes. The first result is about the interaction between the case and adjacency of both subjects, displayed in figure 1. In fact, there is significant effect of this interaction ($F(2,1398)=10.2$; $p<0,001$) in the sense of:

- If matrix and embedded subjects are adjacent, under 1 in the figure, then there is a significant preference for accusative marking of the embedded subject.
- If matrix and embedded subjects are NOT directly adjacent, under 2 and 3 in the figure, then there is NO preference for case marking of the embedded subject.

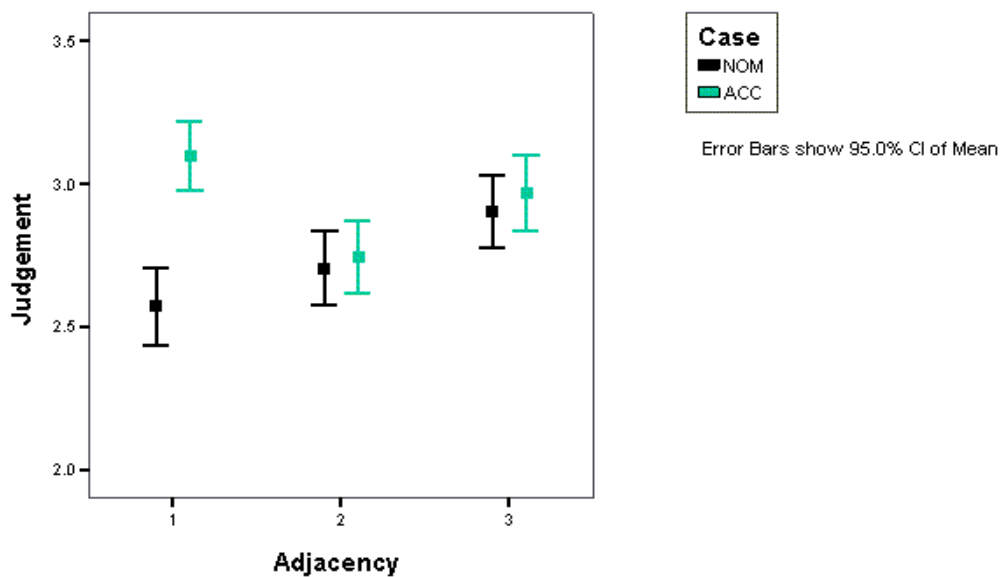


Figure 1. Interaction between case and adjacency of subjects

The test items for that are repeated in (11)-(13).

- (11) *Neg bagsh Tuya(-g) hicheel-d idevhtei orolz-oh-ig sanuul-av.*
 a teacher Tuya-ACC lesson-DAT diligently participate-INF-ACC warn-PST
 “A teacher warned that Tuya has to participate diligently at the lesson.”

- (12) *Neg bagsh unuudur Tuya(-g) hicheel-d idevhtei orolz-oh-ig*
 a teacher today Tuya-ACC lesson-DAT diligently participate-INF-ACC
 сануул-ав.
 warn-PST
 “Today a teacher warned that Tuya has to participate diligently at the lesson.”
- (13) *Tuya(-g) hicheel-d idevhtei orolz-oh-ig neg bagsh сануул-ав.*
 Tuya-ACC lesson-DAT diligently participate-INF-ACC a teacher warn-PST
 “A teacher warned that Tuya has to participate diligently at the lesson.”

The next 2 figures show the results about the hypothesis of referentiality and animacy, i.e. about the question whether there is an interaction between case and these features. Some of the test sentences where the subjects are adjacent but differ in relative referentiality are repeated below. Their results are shown in figure 2.

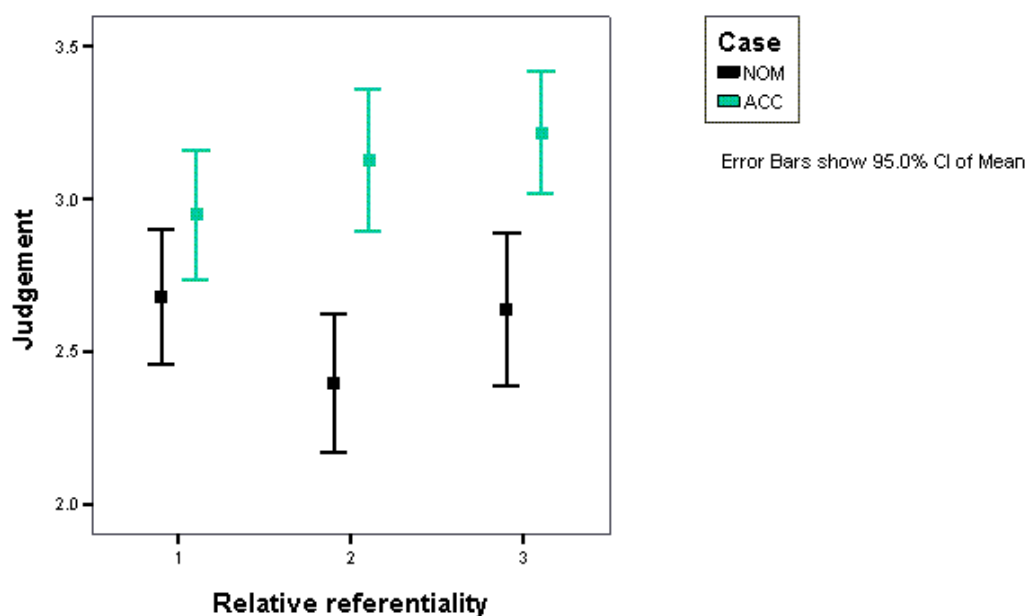


Figure 2. Interaction between case and relative referentiality of adjacent subjects

- (14) *Tuya neg shiree(-g) end bai-sn-ig har-san.*
 Tuya a table-ACC here be-PST-ACC see-PST
 “Tuya saw a table was here.”

(15) *Tsetsegee Bold(-ig) unuudur huduu-nuus ir-sn-ig sons-son.*
 Tsetsegee Bold-ACC today country-ABL come-PST-ACC hear-PST
 “Tsetsegee heard that Bold came today from the countryside.”

(16) *Neg zereg ene buu(-g) yaj ajilla-dag-ig nadad zaa-j ug-sun.*
 a soldier this gun-ACC how work-HAB-ACC me show-CVB give-PST
 “A soldier showed me how this gun functions.”

Figure 2 can be interpreted as follows. If the two subjects are adjacent, then accusative marked embedded subjects are significantly preferred to nominative embedded subjects only if they are equal to or higher than the matrix subject on the referentiality scale.

Finally, figure 3 shows the interaction between the case of embedded subjects and the relative animacy of both adjacent subjects. There is a significant preference for accusative marking of the embedded subjects adjacent to the matrix subjects if its animacy is equal to or higher than the animacy of the matrix subjects. Examples from the questionnaire are shown below.

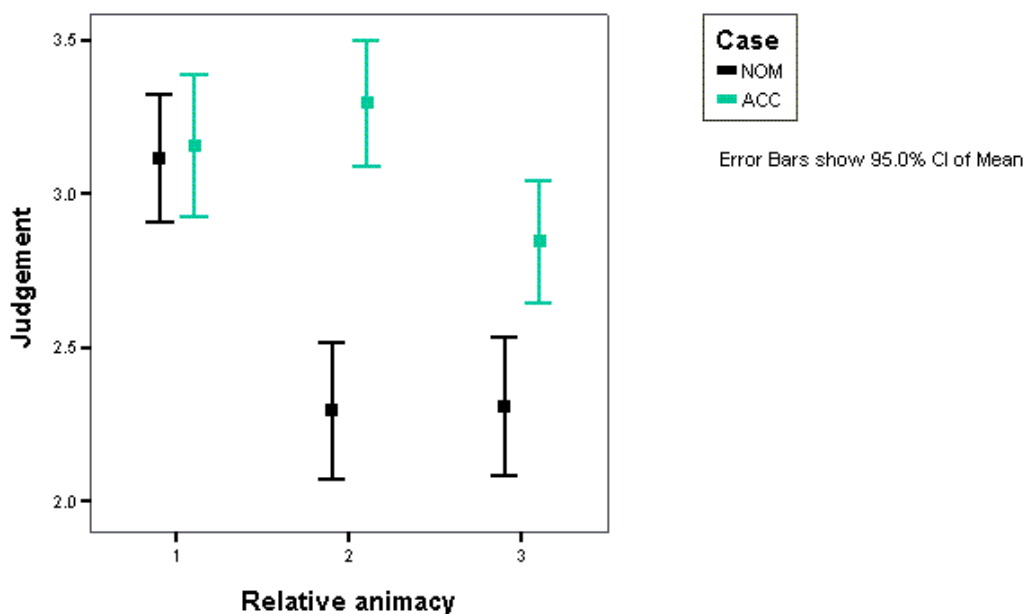


Figure 3. Interaction between case and relative animacy of adjacent subjects

(17) *Tuya neg shiree(-g) end bai-sn-ig har-san.*

Tuya a table-ACC here be-PST-ACC see-PST

“Tuya saw a table was here.”

(18) *Sarnai neg oyutan(-ig) end amidar-dag-ig med-ne.*

Sarnai a student-ACC here live-HAB-ACC know-PRS

“Sarnai knows that a student lives here.”

(19) *Ene GPS bagaj neg hun(-ig) haana bai-gaa-g todorhoil-dog.*

this GPS instrument a man-ACC where be-PRS-ACC determine-HAB

“This GPS instrument determines where a man is.”

To conclude, we see that the adjacency of subjects plays a role for accusative marking of embedded subjects, but only if the embedded subjects are equal to or higher in referentiality than the matrix subject, or if they have the same or higher animacy feature than matrix subjects. In other words, the accusative case occurs to distinguish between the two adjacent subjects provided that the matrix subject is lower than the embedded subject on the referentiality and/or animacy scale.

4. Summary and further research

The conditions for two major case alternations involving the accusative suffix in Mongolian indicate that it functions to distinguish not only between the two different arguments in the same clause (DOM), but also between the two adjacent subjects across clause boundaries. Put differently, the accusative case signals that the noun phrase to which it suffixes is not the matrix subject.

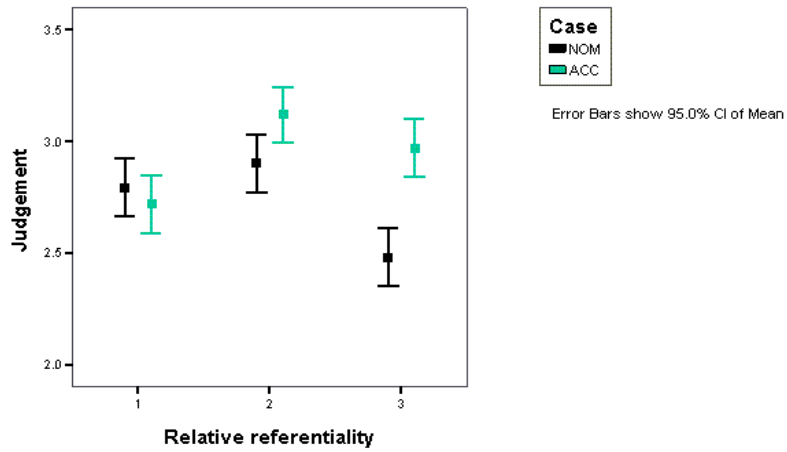
If the idea that the accusative case can also be used to distinguish arguments across clause boundaries, provided they are adjacent and the matrix subject is lower on referentiality and/or animacy scale, there is a reasonable expectation for this to be the case irrespective of the type of embedded clause. Since temporal subclauses also display a case alternation on the embedded subject involving the accusative, it would be interesting to find out whether this prediction is born out. This had to be left for future work.

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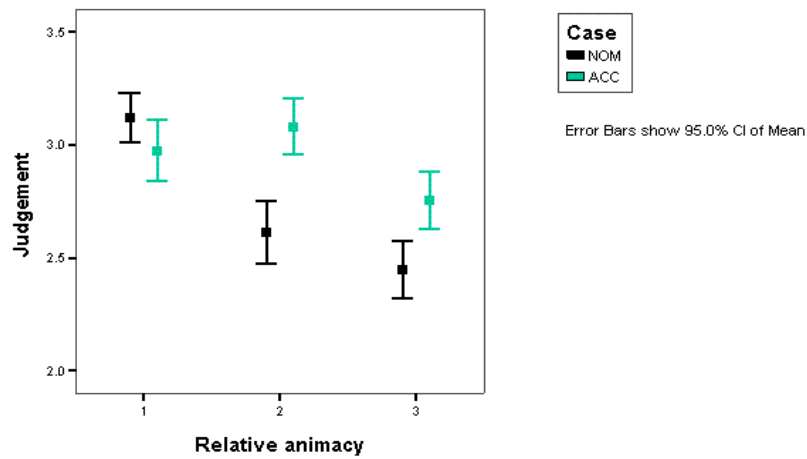
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Appendixes

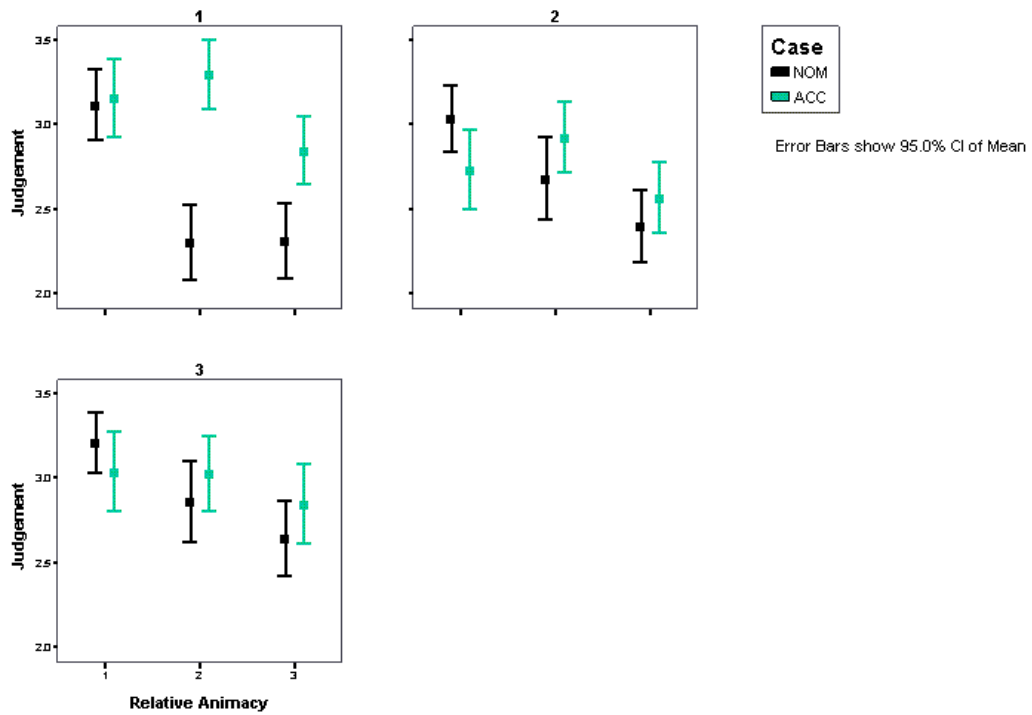
Interaction between case and relative referentiality



Interaction between case and relative animacy



Interaction between case and relative animacy, split by adjacency



Interaction between case and relative referentiality, split by adjacency

