

Case Checking of the External Head in Relative Clauses

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Abstract

The primary goal of this paper is to find out case checking of the external nominal in relative clauses. The secondary goal of this paper is to determine the suitability of the three standard theories for the structure of relative clauses for explaining case checking in relative clauses. This study involves taking examples from different languages and analyzing them for morphological case forms and case checking. This study establishes that in majority of cases the morphological case forms of the external nominals in relative clauses correspond to the case forms of the main clause and not the relative clause. This corroborates the standard view that case to the external nominal of a relative clause is assigned from outside the relative clause. As a consequence of this substantiation, the relative suitability of the three theories for relative clauses, namely, matching analysis, raising analysis, and head-external analysis, is determined. The study establishes that the matching analysis and head-external analysis are more suited to explain case checking in external nominals of relative clauses.

Key Words: Case; Relative Clause; Case Checking; External Nominal

Introduction

This paper tries to find the relative relevance of the three theories about relative clauses with reference to case checking of the external head in them. The standard theory is that that nominal is assigned case in the main clause by the functional head inside the main clause (Chomsky, 1977; Kayne, 1994; Bianchi, 1999; Bhatt, 2002; Sauerland, 2003; Hulsey & Sauerland, 2006; Salzmann, 2006; Privizentseva, 2025). To achieve the main objective of the study, a two-pronged approach is adopted. First, it is determined whether in different languages the case of the external head is checked by the relevant functional head in the main clause or it is checked by the functional head in the relative clause. Once the relevant functional head and its clause is determined, then it will be determined which of the three theories most suitably explains the case checking of the external head of a relative clause.

The paper is spread over the following sections. Section 1 gives the introduction of the topic. Section 2 gives the literature review of the topic concerned. Section 3 analyses case checking of external heads in relative clauses from a cross-linguistic perspective. Section 4 tries to determine the relative suitability of any or all the three theories of relative clauses in the context of the case checking of the external head of the relative clauses. Section 5 concludes the paper.

Literature Review

So far, to explain the structure of relative clauses, a number of theories have been presented. However, for our purposes, three theories, namely, the Matching Analysis (Lees, 1960; Chomsky, 1965; Sauerland, 1998, 2003; Hulsey & Sauerland, 2006), the Raising Analysis (Vergnaud, 1974; Kayne, 1994; Bhatt, 2002; de

Veries, 2002), and Head-External Analysis (Quine, 1960; Partee, 1975; Chomsky, 1977) are important as they directly deal with the originating place of external heads. By extension, the same could be used to determine the case checking mechanism for the external heads of relative clauses. The matching analysis is based on the idea that the external head originates outside the relative clause; on the other hand, there is a null NP inside the relative clause. This null NP is co-indexed with the external nominal. Sometimes, there is a full NP inside the relative clause. The relative operator in the relative clause binds the null NP/ full NP inside the relative clause. The null NP/ full NP matches the external head. The structure for such clauses is given below:

Structure: [DP the [book]_i [CP Op_i [TP I read [NP book]_i]]]]

In the raising analysis, on the other hand, the external nominal is not base-generated outside the relative clause; rather, it originates inside the relative clause. From there it raises to the edge of a CP and from there to the DP-external head position. The place from where the external head raises, it leaves a 'gap' behind. The structure for such a clause is given below:

Structure: [DP the [book]_i [CP Op_i [TP I read t_i]]]]

As per head-external analysis, the relative clause is a CP and it is adjoined to a DP. The DP serves as the external head. In the head-external analysis, unlike the raising analysis, the external nominal is base-generated outside the relative clause. Inside the relative clause, there is a relative operator (or a null operator) which binds a trace inside the relative clause. Inside the relative clause there is no copy of the external head, only a trace is there. In fact, inside the CP, the operator and trace form a chain.

Structure: [DP the [NP book [CP Op_i C[TP I read t_i]]]]

For case assignment, various theories have been presented. In the Government and Binding era, the main idea was that case is assigned to a nominal while in the Minimalist Program the idea of case assignment changed to the idea of case checking of a nominal. Case checking means that a functional head checks the case of a nominal and does not assign case to it. On the whole, for case assignment/ case checking some of the accounts are: Carstens (2001), Bejar (2003), Tanaka (2005), Chomsky (2005, 2006), Alexiadou and Anagnostopoulou (2006), Bobaljik and Branigan (2006), Richardson (2007), Legate (2008), Baker (2008), Baker and Vinokurova (2010), Masood and Rahman (2013a, 2013b, 2014a, 2014b, 2015, 2020), and Masood (2014, 2021a, 2021b, 2022a, 2022b). They have proposed various features whose sharing between a functional head and the concerned nominal results in structural case assignment (checking). Since, we are not concerned with how case is checked; therefore, we would not pursue these details any further.

For our purposes, we are more concerned with the case checking of the external nominal. For case checking of external nominals of the relative clauses different ideas have been presented over the years. Somewhere case assignment is taken for granted as a related phenomenon alongside relative clause structure, while in others case assignment is specifically addressed (Chomsky, 1977; Kayne, 1994; Bianchi, 1999; Bhatt, 2002; Sauerland, 2003; Hulsey & Sauerland, 2006; Salzmann, 2006; Privizentseva, 2025). Due to space limitations, we are unable to give details of each authors along with their suggested mechanisms.

Analysis and Results

To analyze how case is checked of the external head of a relative clause, first, examples are taken from different languages to see what morphological case is borne by the external head in relative clauses. This will enable to see whether the same morphological case form obtains in all the languages or there are differences. In case the same form obtains, it will make things easier for us to hypothesize, and in case different morphological case forms obtain, then we will have to hypothesize for different morphological manifestations of the case on external nominal of the relative clause. Moreover, our sample examples are related to both subject and object relativization as it will enable us to see case differences (morphologically) between the two positions. Examples from only subject or object position will not be able to show case dichotomies (though it is not claimed that all the languages of the world have case dichotomies between these two positions). Alongside this, in all our examples, pronouns are used as subjects and objects, as in our sample languages,

mostly pronouns show case-marking for different cases. On the contrary, in our sample languages, in majority of cases, nouns do not exhibit case-markings for nominative and accusative cases and by extension for ergative and absolutive cases.

English

Our first sample language is English. In English, in an ordinary transitive construction, the subject bears nominative case and the object bears accusative case. Let us see how it works for the external head of a relative clause:

1. I have met Peter yesterday. [He [who is falling] is Peter.] (Subject Relativization)
2. [He [who is drowning] is our neighbor]. (Subject Relativization)
3. [By the way, I have met him [who had helped you]]. (Object Relativization)
4. [We have seen her [who won the race]]. (Object Relativization)

Hindi/Urdu

For Hindi/Urdu, we will repeat the same examples that have been used for English. In Hindi/Urdu, like English, an ordinary present tense construction will have nominative case for the subject and accusative case for the object; however, since Hindi/Urdu is one of a TAM based split-ergative languages, therefore, at times, unlike English, it has ergative case for the subject, depending on tense and aspect. Let us see how it has different morphological cases for the external nominal in different constructions:

5. *mai Peter say mill chukka ho. [vo [jo-kayger raha hai] Peter hai].*
 I Peter to meet have do he.NOM REL fall PROG be.PRS
 Peter be.PRS
 ‘I have met Peter. He who is falling is Peter.’
6. *[vo [jo doob raha hai] hamara hamsaya hai].*
 he.NOM REL drowning PROG be.PRS our neighbor be.PRS
 ‘He who is drowning is our neighbor.’
7. *[mai os-say [jis-nay tumhari madad ki thi] mil chukka ho].*
 I.NOM he.ABL REL your.GEN help do be.PST meet.PRS PRF do.PRS
 ‘I have met him who had helped you.’
8. *[hum os-ko [jis-nay race jeeti] dekh chukay hai].*
 we.NOM she.ERG REL race win.PST see.PRS PRF be.PRS
 ‘We have seen her who won the race.’

Pashto

For Pashto, the same examples are repeated which were used for both English and Hindi/Urdu. Pashto is also a TAM based split-ergative language. Its split is along the dimension of tense where there is nominative and accusative case alignment in the present and future tenses and ergative- absolutive case alignment in the past tense. Let us see what the morphological manifestations of case in Pashto are:

9. *zə day Peter sara milao shway yum. [Hagha [che prevazzi] Peter day].*
 I.NOM with Peter with meet.PRS do.PRS be.PRS he.NOM REL fall.PRS
 Peter be.PRS
 ‘I have met Peter. He who is falling is Peter.’
10. *[hagha [che dobegi] zmong gawandi day].*
 he.NOM REL drowning.PROG.PRS our.GEN neighbor be.PRS
 ‘He who is falling is our neighbor.’

11. [zə da haghə sara [che tha ye madad ka.ɽay wo] milao
shway yum.
 I.NOM with he.ABL with REL you.ERG he.RP help do.PST be.PST met.PRS
 do.PRS be.PRS
 ‘I have met with him who had helped you.’
12. [mong haghə [che race ye gatalay day] ledalay
da].
 we.NOM he.NOM.DET REL race he.RP.ERG won be.PRS seen be.F.PRS
 ‘We have seen her who won the race.’

First, we consider the English examples. They have nominative case on subjects relativized and have accusative case on objects relativized. Both the subjects relativized and objects relativized are serving as subjects and objects of the concerned constructions. Thus, there is nominative-accusative case alignment in the main clauses of English.

For Hindi/Urdu, the relativized nominal in the subject position bears nominative case. In the examples where objects are relativized, the external nominal in example no. 7 bears ablative case while the external nominal in example no. 8 bears accusative case.

In Pashto, the subject nominals, which are relativized, bear nominative case. The object nominals, which are relativized, bear ablative case in example (11), and accusative case in example (12).

Discussion

Based on the morphological case forms of the external nominals in the relative clauses of the three languages it is clear that the subject nominals bear nominative case. As per the standard Minimalist theory, the nominative case of a nominal is checked between the nominal and the functional head T. In the examples where the object nominals are relativized, they bear accusative case. As per the standard Minimalist theory, the accusative case is checked as a result of phi features agreement between the internal argument and the functional head small v. Both in Hindi/Urdu and in Pashto in examples (7) and (11), respectively, the case of the external nominal is ablative which means that their case is assigned by the relevant preposition/postposition. Their difference from their English counterpart is, perhaps, due to the tendency of these languages to form excessive correlative clauses alongside relative clauses. Therefore, these constructions if conveying the same idea could be more acceptable as correctives, not as relative clauses. Since, in these two constructions cases are assigned by prepositions/postpositions, therefore, we will not be in a position to infer much from these two constructions.

Overall, it is evident that in all the three languages, the case to the head nominal of a relative clause is assigned in the main clause. Based on this pattern, this study will try to find the relative suitability of any or all the three theories that have been proposed for the structure of relative clauses. We first take the case of matching analysis. Matching analysis assumes that the external nominal is generated outside the relative clause. Inside the relative clause, there is a null NP and in some cases we have full NPs that are co-indexed with the external nominal. The internal null/full NP matches the external nominal. As per this theory, the external nominal is generated as a part of the main clause and in the main clause its case is checked either by T or by v depending on whether it is an internal argument or an external argument. In case there is a full NP inside the relative clause, then its case is checked by a functional head that forms part of the relative/embedded clause. Thus, there is no Case Filterⁱⁱ violations. Hence, the matching analysis is able to explain fully the case checking of the external nominals in relative clauses.

In raising analysis, the external nominal does not originate outside the relative clause; rather, it originates inside the relative clause. From there it rises to the external nominal position. This entails that the external

nominal of a relative clause receives its case inside the relative clause. This entails again that if we somehow suppose (and ignore all the derivational procedures) that the case is checked inside the relative clause, then the subject of the relative clause should have nominative case and the object of the relative clause should have accusative case and once the nominal is raised out of the relative clause, it should bear the case that it had inside the relative clause. To illustrate this point further, in all those examples where subjects are relativized, technically, the relativized subjects should exhibit nominative cases. However, we see that they have in some case nominative cases, in some cases accusative cases, and in still others they have ablative cases. This shows that the raising theory is not working for the case checking of the external nominals.

In head-external analysis, like the matching analysis, the external head is generated outside the relative clause. Inside the relative clause, there is a trace. The trace and the operator inside the relative clause form a chain. The case of the external head is checked outside the embedded/ relative clause. The morphological cases of the external nominals (of the relative clauses) inside the main clause, as reported in the examples above, correspond to the standard Minimalist theories of case checking: nominative case is checked by T and accusative case is checked by v. Thus, the head-external analysis is also able to explain case checking of the external nominals of the relative clauses. To sum up the whole picture, we can conclude that the matching analysis and the head-external analysis are better suited to explain the case checking of external nominals in relative clauses.

Conclusion

This study tried to find the relative suitability of the three theories for structure of relative clauses with reference to case checking of the external nominal in relative clauses. Keeping that goal before us, examples from different languages were considered. In majority of cases, the morphological case forms of the external nominals corresponded to their placement inside the main clause. This helped us to claim that they are assigned case outside the relative clause, which was in fact the standard cross-linguistic generalization as well. This was followed by an analysis where the relative suitability of each of the three theories for relative clauses was determined. Our analysis showed that matching analysis and head-external analysis were in a better position to explain the checking of case of the external nominal in relative clauses as these two theories believed in generation of the relativized nominal outside the relative clause. The raising analysis was unable to explain the morphological case forms of the external nominal as the case forms of the external nominals did not correspond to the case forms of the nominals which they should have had, had they been generated inside the embedded/ relative clause.

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ⁱ Structurally, this sentence has a very complicated construction. The case of the subject nominal is ergative and the case of the object nominal is absolutive; this is contrary to the established case alignment in Pashto. In Pashto, in the present and future tenses there is NOM-ACC case alignment and ERG-ABS case alignment in the past tense. This may have to do with the nature of the verb. This could be itself a topic for research.

ⁱⁱ *NP if NP has phonetic content and has no Case (Chomsky 1981)