

On the Universality of the Extended Projection Principle

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Abstract

This paper deals with the universality of the extended projection principle (EPP). It was an immediate success as it effectively dealt with the thorny issue of expletives and raising constructions. Later on, studies on pro-drop and partially pro-drop languages and languages with flexible word orders, made syntacticians to question the universality of the EPP. In the context of this background, the present study analyses EPP in languages with no expletives (and perhaps no raising constructions). For this purpose constructions where ‘that clauses’ serve as the subjects are chosen; as, cross-linguistically, languages prefer to alternate ‘that clauses’ with some other constructions. The sample languages, alongside different alternating strategies, also resorted to insertion of a pronoun in the subject slot and moved ‘that clause’ to the end of the sentence. This showed that although other factors exerted their influence to shift the heavy part to the end of the sentence, syntax was there to have its own on the subject position of the main clause. Thus, this study established that EPP is still relevant for the sample languages and it could be the case on cross-linguistic basis as well.

Introduction

In Government and Binding (GB) era of generative grammar, the projection principle was considered inadequate to deal with expletives and raising verbs constructions in English and other languages. To account for this, Chomsky (1981) came with the idea of extended projection principle (EPP). The EPP was able to account for the presence of nominals in positions where no case was assigned and no theta role given:

1. It is raining.
2. There seems to be an issue.

To show its importance, an instance is given of ‘that clauses’ as subjects. In such constructions, ‘that clauses’ as subjects are moved to the end of the sentence to avoid their usage as subjects; however, an expletive is added to satisfy the EPP.

3. That she is too lazy disturbs me.
4. It disturbs me that she is too lazy.

However, studies on other languages, especially those that had no expletives or raising verbs, somehow gave the idea that EPP may not be that essential. In the context of this background, the aim of this study is to establish that EPP is still an essential part of syntactic derivation and even in languages where there are no expletives (as for example Hind/Urdu, an Indo-Aryan language, and Pashto, an Indo-Iranian language), some mechanism is devised to satisfy the EPP, pointing towards the universality of the EPP.

The paper is organized as follows: Section 1 introduces the topic. Section 2 dilates on the concept of EPP through various lenses in the generative enterprise. Section 3 is concerned with analysis and results. Section 4 is titled discussion. Section 5 concludes the paper.

Literature Review

The idea of extended projection principle was coined by Chomsky (1981) to explain the structure of expletive and raising constructions in languages like English and French. This was an instant success as it enabled generative syntacticians to disentangle themselves from the thorny issue of projection principle vis-à-vis expletives and raising constructions. In the GB era, EPP approximated to the idea that syntax of a construction requires the TP to have a subject in its specifier position. The EPP survived even in the Minimalist Program (MP) (1993, 1995) when Chomsky and other generativists somehow tried to rid themselves of the large paraphernalia of the GB Program. In the MP, the idea of EPP meant the satisfaction of a feature on TP. Also, with the passage of time, different idea have been forwarded to deal with expletives, raising constructions, the non-nominal nature of the EPP, and pro-drop and partially pro-drop languages.

In the MP, McCloskey (1997) has dilated in detail on the idea of subjecthood. In his chapter, he distances himself from the traditional idea of subject as single structural position in a clause, a primitive, and a unified theoretical entity; rather, he proposes that the properties that are generally associated with the idea of subject could be decomposed and spread to different positions and mechanisms. His proposal he extends even to those languages where there are no canonical word orders (e.g. VSO languages) to show that the relation between surface subjecthood and properties is not that straightforward. Overall, he advocates for a distributed view of subjecthood. Alexiadou and Anagnosotopoulou (1998), in their paper, first enumerates a list of different linguistic patterns and then propose that these phenomena and differences could be captured in terms of EPP. They propose that languages differ depending on whether the EPP is satisfied by a full phrase (XP) or a head (X'). Thus, in languages like English (Germanic), the subject DP (XP) checks EPP; however, in other languages like Celtic, Greek, and Romance, the EPP is checked by X'. In these languages, the agreement morphology also carries a nominal feature and that feature satisfies the EPP feature. On the contrary, languages like English have no nominal feature in their agreement morphology.

Bošković (2002) essentially proposes that EPP in itself is not an explicit grammatical principle. The features associated with EPP could better be considered as reflections of other grammatical mechanisms, such as A-movement due to locality requirements and Case theory. Holmberg (2005) examines the nature of null subject –often referred to as little *pro* in the relevant literature – in the light of evidence from Finnish. He presents two competing hypotheses about the little *pro*.

Hypothesis A:

There is no *pro* at all in null-subject constructions. Instead Agr, the set of ϕ -features of I, is itself interpretable; Agr is a referential, definite pronoun, albeit a pronoun phonologically expressed as an affix. As such, Agr is also assigned a subject theta-role, possibly by virtue of heading a chain where the foot of the chain is in vP, receiving the relevant theta-role. (Holmberg 2005, p.536)

Hypothesis B:

The null subject is specified for interpretable ϕ -features, values the uninterpretable features of Agr, and moves to specIP, just like any other subject. This implies that the nullness is a phonological matter: The null subject is a pronoun which is not pronounced. (Holmberg 2005, p. 537)

Through his data, he shows that hypothesis B is tenable for Finnish.

On the other hand, the idea of 'that clause' has been extensively discussed in both traditional and generative grammars. Some of the well-known accounts of 'that clause' as subjects are: Chomsky, 1981, 1995, 2005; Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. 1985; McCawley, 1998; Biber, Johansson, Leech, Conrad, & Finegan, 1999; Huddleston, & Pullum, 2002; Swan, 2005; Radford, 2009; Aikhenvald, 2015. Alongside this, there has been a research on how languages resort to alternate strategies to avoid the use of 'that clauses' as subjects. Some of the accounts are: Rosenbaum, 1967; Koster, 1978; Haegeman, 1994; Moulton, 2009, 2015 Lohndal, 2013; Shim, Ihsane 2017; Tanigawa 2018; Hawkins, 2021; Hoot, & Ebert, 2021; Hao, &

Analysis and Results:

This section deals with various manifestations of subject requirements by the syntax of construction to show that EPP is necessary. It starts with giving details about English (which is largely explored by various studies) to show how it works in languages with expletives. Later on, this section deals with Hindi/Urdu and Pashto. The former is a TAM based split-ergative Indo-Aryan language while the latter is a tense (TAM) based split-ergative Indo-Iranian language. The thing common in both the languages is that both languages have no expletives.

English

5. There is some water in the jug.
6. There seems to be a problem.
7. It is raining.
8. It is imperative to finish the assignment.
9. Ali appears to have failed the exam.
10. Erika seems to be tired.

In (5 and 6), ‘there’ does not refer to any place. The real semantic subjects are ‘some water’ and ‘a problem’. In (7 and 8), ‘it’ does not refer to anything tangible. In (9 and 10), Ali and Erika are not the subjects of ‘appears’ and ‘seems’ respectively; rather, they are the subjects of ‘have failed’ and ‘be tired’.

However, the story does not end here. In constructions, where ‘that clauses’ serve as subjects of finite clauses are replaced with sentences where expletives are used as subjects and ‘that clauses’ are moved to the end of the construction.

11. That my daughter is an excellent reader makes me happy.
12. It makes me happy that my daughter is an excellent reader.
13. That Ali failed the exam worried Erika.
14. It worried Erika that Ali failed the exam.

In these constructions, due to various factors including processing load, discourse constraints, semantic requirements, etc. ‘that clauses’ are moved to the end of the sentences; however, syntax requires that these sentences should have their respective subjects. Since, ‘that clause’ subjects are to be moved to the end of the sentence, therefore, to satisfy the syntax (EPP), a dummy subject (an expletive) is inserted. Thus, the requirements of both syntax (EPP) and other factors are full filled.

Hindi/Urdu

In Hindi/Urdu, there are no expletives. However, when it comes to ‘that clauses’ as subjects, in majority of cases it resorts to nominalizations, though, it is not faced with that much constraints as was the case with English. Still, it favors the tendency either to nominalize ‘that clause’ or move ‘that clause’ to the end of the sentence, a tendency visible across majority of world languages. However, more interestingly for our purposes, at times, Hindi/Urdu resorts to usage of a pronoun to refer to the proposition that the ‘that clause’ has conveyed. Thus, the pronoun functions as the subject of the main clause and ‘that clause’ is moved to the end of the sentence. To understand this phenomenon, consider the following examples:

15. *ke mera batheja aik acha kela.ji hai mujay khosh ker detha hai.*
that my nephew one good player be.PRS I.ACC happy - do be.PRS
‘That my nephew is a good player makes me happy.’

16. *ye mujay khosh ker detha hai ke mera batheja aik acha kela.ʃi hai.*
 this/it I.ACC happy - do be.PRS that my nephew one good player
 be.PRS
 ‘This/it makes me happy that my nephew is a good player.’
17. *ke woh test may pehlay number par aya mujay heran kar gaya.*
 that he test in first position on come.PST I.ACC surprised -
 do.PST
 ‘That he stood first in the test surprised me.’
18. *ye mujay heran kar gaya ke wo test may pehlay number par aya.*
 this/it I.ACC surprised - do.PST that he test in first position on
 come.PST
 ‘This/it surprised me that he stood first in the test.’

What these examples convey is the fact that in the second and the fourth examples the subject ‘ke clause’ has been moved to the end of the sentence; however, to satisfy the EPP requirement a pronoun *ye* has been added. This shows that even for Hindi/Urdu, which is considered an EPP flexible language, EPP is there when required.

Pashto

Pashto is the less explored of our sample languages (for different aspects of Pashto please refer to Masood & Rahman, 2020; Masood, 2014, 2021a, 2021b, 2021c, 2021d, 2022a, 2022b, 2025a, 2025b, 2025c). In Pashto, as far as I know there are no expletives. Like the other two languages, Pashto also has the tendency to move ‘that clause’ towards the end of a sentence. This it does through use of *da* pronoun, and nominalization of ‘that clause’. However, for our purposes, we will consider those examples where *da* pronoun is used to move ‘that clause’ to the end of a sentence.

19. *che wakhttha raghlai khā shwa.* (Tegey & Robson 1996)
 that early come good be.PRS
 ‘That you came early is good.’ (Masood, 2025a, p. 2252)
20. *da khā shwa che wakhttha raghlai.* (Masood, 2025a, p.2252)
 this/it good be.PRS that early come
 ‘This/it is good that you came early.’
21. *che pə votono kay taage shaway wa safa khkarayda.* (Masood, 2025a, p.2252)
 that - votes in rigging do.PST be.PST clear visible
 ‘That the elections were rigged was clearly visible.’
22. *da safa khkarayda che pə votono kay taage shaway wa.* (Masood, 2025a, p.2252)
 this/it clear visible that - votes in rigging do.PST be.PST
 ‘This/it was clearly visible that the elections were rigged.’
23. *che hagma test k awāl raghay zə ye der heran k.ʃam.*
 that he test in first stood I.NOM RP.3P very surprised do.PST
 ‘That he stood first in the test made me very surprised.’
24. *che hagma test k awāl razi ma herana-wi.*
 that he test in first stand I.ACC surprise-do

‘That he stands first in the test surprises me.’

25. *da ma herana-wi che hagma test k awal razi.*
 this/it I.ACC surprise-do that he.NOMtest in first stand
 ‘This/it surprises me that he stands first in the test.’

In (20, 22, and 25), ‘that clause’ is moved to the end of the sentence. Towards the left periphery, a pronoun *da* is inserted and that pronoun serves as the subject of the main clause. At the same time, the pronoun *da* refers cataphorically towards ‘that clause’ as a proposition. The movement of subject ‘that clause’ to the end of the sentence is due to the tendency across languages to move ‘that clause’ to the end of the sentence due to processing load, semantic requirements, and discourse constraints, while the presence of *da* at the start of the main clause shows that it is required by the syntax (EPP). Example (23), however, is a different construction. In the main clause, the presence of resumptive pronoun (RP) *ye* shows that ‘that clause’ is moved from inside the main clause; thus, it has nothing to do with our current topic. Therefore, we will not follow that particular example.

Discussion

To account for the expletive and raising constructions, Chomsky (1981) proposed the idea of extended projection principle (EPP). It was able to explain English and other languages that have expletives and raising constructions. The EPP was considered a universal requirement in the arena of syntax. In addition to English, our study analyzed constructions in Hindi/Urdu and Pashto. This analysis aimed to see how these languages behave vis-à-vis EPP. This was significant in the context of the fact that both Hindi/Urdu and Pashto have no expletive constructions and in the absence of research on raising in both these languages, it is not certain whether these languages have raising constructions or not. On a personal note, I think that these languages have no raising constructions. Additionally, Hindi/Urdu and Pashto are head-final languages, which means that things could precede the head/verb.

Technically, the main option then left with these two languages is nominalization of the ‘that clause’ which satisfy the EPP as well. The reason for the preference of nominalization over ‘that clause’ is that nominalization has nominal character while ‘that clause’ has clausal character. However, interestingly, if the nominalization of ‘that clause’ strategy is avoided, then these languages resort to insertion of a pronoun in the main clause to satisfy the EPP. In the Pashto examples we see that ‘that clauses’ have been moved to the end of the sentence and in the main clause a pronoun has been inserted in the subject position where there was ‘that clause’ initially. The insertion of the pronoun shows that even Pashto strongly favors EPP due to syntax requirements. This is also established by the fact that in Pashto, as an alternate strategy to avoid the use of ‘that clause’ subjects, insertion of *da* has been the most frequent and favored strategy (Tegey & Robson, 1996; Masood, 2025a).

For Hindi/Urdu, on the contrary, nominalization has been the most frequent alternate strategy for ‘that clause’ subjects. However, if due to processing weight, discourse constraints, and semantic requirements, if it has to adopt another alternate strategy then it resorts to insertion of a pronoun that cataphorically refers to the moved ‘that clause’. This cataphoric reference is not to the individual contents of ‘that clause’ but to the single proposition that the ‘that clause’ carries. Thus, we see in the examples above that the insertion of pronoun strategy has been resorted to. Thus, processing load, discourse constraints, and semantic constraints may force ‘that clause’ to move to the end of a sentence; however, syntax (EPP) requires that a nominal must be there in the subject position of the main clause to serve as its subject and satisfy the EPP.

This also shows that although Hindi/Urdu and Pashto may not have expletives yet when it comes to the extended projection principle, they have unique mechanisms at their disposal. Thus, if due to processing load, discourse compulsion, and semantics requirements they have to shift the heavy ‘that clause’ to the end of the sentence, they can resort to the unique mechanism of pronoun insertion to satisfy the EPP requirement. Thus, data not only from English, but from Hindi/Urdu and Pashto also confirm that EPP is there and is a universal

syntactic requirement.

Conclusion

This paper started with the aim to see the validity of the extended projection principle in the light of the new studies and findings in different languages. This involved, in addition to the study of English expletives and raising constructions that have already been explored in the relevant literature about the EPP, the study of Hindi/Urdu and Pashto to ascertain the validity of the EPP. Both these languages have no expletives and could be considered a challenge for the theory of EPP. To ascertain the relevance of EPP for these languages, 'that clauses' as subjects of sentences were used for analysis. Our choice of 'that clauses' was due to the fact that cross-linguistically many languages avoid their usage in the subject position because of their more processing load, discourse related constraints and semantics constraints. However, syntax allow them as subjects. Thus, they were an excellent choice to see how the sample languages respond, in the absence of expletives (and to some extent the absence of raising constructions). The results of the analysis were according to our expectations as these languages resorted to alternate strategies and one of the alternate strategy was the usage of a pronoun instead of 'that clause' subject and the shifting of 'that clause' to the end of a sentence. This was significant as it showed that these languages needed EPP and although other factors pushed 'that clause' to the end of the sentence however syntax required that there must be something in Spec TP to satisfy the EPP. This established that EPP is an important requirement for syntactic derivation in these languages. This also established that, contra the idea of nominal feature in verbal agreement as the EPP, EPP is nominal in nature. A unique characteristic that emerged during this study was the different behavior of 'that clauses as subjects' in the past tense and their adoption of the alternate strategy characterized by insertion of a pronoun and shift to the end of the sentence. It was an interesting deviation, but we could not explore it thoroughly due to topic limitations. However, for future research, it could prove an interesting topic.

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