

## **Syntactic Configurations of Chomsky's binding Theory in Pashto:** A Cross-Linguistic Approach to the Study of Binding Module

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Abstract:

This paper attempts to chart out a syntactic analysis of Binding theory in Pashto language. The three principles of Binding theory, namely Principle A, B and C have been analyzed within the framework of Pashto syntactic structures. Binding theory provides syntactic structures for co-referential and non-coreferential NPs. Syntactically, co-referentiality finds S-representation in identical indices whereas non-coreferentiality is expressed with non-identical indices. English and Pashto share certain formal configurations of Binding theory. There are, however, certain aspects of binding that do not find similar expressions in Pashto. The study recognizes the different morphological forms of anaphors and pronominals in Pashto. These forms pose certain syntactic viabilities and lead to conclusion that Pashto treats the concepts of binding, locality and C-commanding along different lines.

**Key words:** Binding Theory, Co-referentiality, Pronominalization

### **1. Introduction**

Chomsky (1986) in his “Principles and Parameters Module” says that all languages of the world share a great deal of similarities which are called principles. There may be some dissimilarities in certain aspects which Chomsky calls parameters. Neil Smith (2004 p. 108) therefore accurately contends that the analysis of certain constructions can be done with evidence from another languages that have a wide range of such constructions. Chomsky (1986 validates cross-linguistic study and says, “The study of one language may provide crucial evidence concerning the structure of some other language” (p. 37).

It must be recognized that English and Pashto have some syntactic variations. Whereas English is SOV language, Pashto is SOV. This means that English is a left branching language and the complement of verb appears to the left of the head. Pashto is a right branching language and it places the complement of the verb to the right. The two languages also differ in assigning syntactic position to the complement of preposition. English follows P + complement paradigm, while

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Pashto places the complement of the preposition to the right. Pashto, in this sense, is postpositional language. There are also parametric variations concerning genderization of lexical items. English reflexives and reciprocals are inflected for number and gender whereas Pashto's are not (see section on reflexive). This study follows cross-linguistic approach and compares the syntactic configurations of Binding theory to Pashto. This module provides a paradigm for finding answers to certain constructions that find limited expressions in some languages.

## 2. Literature Review

Binding theory is recognized as a key module of Universal Grammar. For Haegeman (1994), Binding theory formulates referential and non-referential indexation of NPs, and hence, can accurately be termed as A-binding<sup>1</sup>. Jackendoff (1972) offers thematic hierarchy condition as a semantic substitute for C-commanding requirement and believes that thematic hierarchy can account for the binding relation between a binder and bindee in a sentence like 1 which the module does not describe.

1. \*<sup>2</sup>John was killed by himself.”

Reuland and Everaert (2001) in “Deconstructing Binding” point out some syntactic loopholes in the theory and say that binding conditions are violated in 2 wherein the anaphor “himself” receives Case from “expect” which is not in the local domain of the bindee.

2. “[John i expected] [himself i to be able to hate Mary].”

The complementary distribution of anaphors and pronominals is also not followed in certain cases like (3).

3. “John i pulled the blanket over him i/himself i.”

For Carnie (2000), the theory provides a layout for the distribution of NPs. The subjectivization of an anaphor, for example, is not a syntactic viability in English as shown in (4).

4. “\*Each other annoyed them.”

## 3. Binding Theory

Binding theory (1986) deals with the relationship between nominal phrases and their potential antecedents. The theory specifies these NPs as (i) anaphors, (ii) pronominals, and (iii) R-expressions. The relationship between an NP (binder) and the anaphor/pronominal is captured by means of coindexation. Co-referentiality between a binder and bindee is shown with same indices like “i” and “i.” non-coreferentiality is expressed with different indices like “i” and “j.”

The theory comprises of the following three principles:

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<sup>1</sup> A-binding describes binding relations in argument positions, whereas in A' -binding the antecedent is not in an A-positions.

<sup>2</sup> Asterisks (\*) means ungrammatical

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- a. “An anaphor is bound in a local domain.”
- b. “A pronominal is free in a local domain.”
- c. “An R-expression is free.”

### 3.1 Principle A

An anaphor is an NP that obligatorily gets its meaning from another NP in the sentence. Reflexives and reciprocals are important anaphors while personal pronouns are pronominals. Consider the following sentences.

5. “John <sub>i</sub> hurt himself <sub>\*i/herself j/\*themselves j.</sub>”
6. “They <sub>i</sub> defended one another <sub>i.</sub>”

NP1                      NP2

In (5), the binder John must have a binding relation with the anaphor “himself.” This example also illustrates that a bindee must agree in gender, number and person with the binder. Likewise, the NP “one another” in (6) is an anaphor and that’s why the binder (NP1) and the bindees (NP2) have been coindexed with same indices (“i” in these cases).

#### 3.1.1 Anaphors in Pashto

Pashto has the following two types of anaphors.

#### 3.1.2 Reflexives

English has same morphological form for basic and emphatic reflexives. Pashto, however, has distinct morphological forms for reflexives. These forms, unlike English, have similar phonological realization for all persons—“zaan” as complement and “pahpala” as adjunct. Reflexives, therefore, are not marked for gender and number in Pashto.

	Basic	Emphatic
Ist person (singular) myself	zaan	pahpala
Ist person (plural) ourselves	zaan	pahpala
2 <sup>nd</sup> person (singular) yourself	zaan	pahpala
2 <sup>nd</sup> person (plural) yourselves	zaan	pahpla
3 <sup>rd</sup> person singular himself	zaan	pahpla
3 <sup>rd</sup> person singular herself	zaan	pahpala
3 <sup>rd</sup> person singular itself	zaan	pahpala
3 <sup>rd</sup> person plural themselves	zaan	pahpala

The difference between English and Pashto can be observed in the following examples.

English	Pashto
7. “I <sub>i</sub> hurt myself <sub>i.</sub> ”	“Ma <sub>i</sub> zaan <sub>i</sub> hoog ko (I <sub>i</sub> myself <sub>i</sub> hurt).”
8. “We <sub>i</sub> hurt ourselves <sub>i.</sub> ” i hurt.)”	“Mung <sub>i</sub> zaan <sub>i</sub> hoog ko (We <sub>i</sub> ourselves i hurt.)”

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- |  |   |
|--|---|
| 9. “You i hurt yourself <sup>1</sup> i.” | “Ta/Taso <sup>2</sup> i zaan i hoog ko (You i yourself i hurt.)”  |
| 10. “You i hurt yourselves i.”           | “Taso i zaan i hoog ko (You i yourselves i hurt.)”                |
| 11. “He i hurt himself i.”               | “Hagha i/Da <sup>3</sup> i zaan i hoog ko (He i himself i hurt.)” |
| 12. “She i hurt herself i.”              | “Haghe i/De i zaan i hoog ko (She i herself i hurt.)”             |
| 13. “They i hurt themselves i.”          | “Haghwe i/Dwe i zaan i hoog ko (They i themselves i hurt.)”       |

As emphasizeers, reflexives have “pahpala” form as shown in the examples below.

14. “Sher Khan i pa hapala i gud halal ko.” (“Sher khan i himself i sheep slaughtered.”)
15. “Dwe i pah pala i leende sara murghai oweshata.” (“They i themselves i slingshot with bird killed.”)

These examples show that, unlike English which has “-self” and “-selves” ending reflexives, Pashto has “zaan” (basic) and “pah pala” (emphatic). Binding theory does not refer to this cross-linguistic difference. Condition A simply specifies a binding relation between an anaphor and a binder. It does not refer to cases where there exists more than one morphological and subsequent syntactic form of reflexives. In accordance with Binding theory, a bindee may have a structural Case<sup>4</sup> or an inherent Case. The reflexive “zaan” is structural because it falls

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<sup>1</sup> English has same morphological form for 2<sup>nd</sup> person singular and plural. The corresponding reflexive, however, is different and , as Murcia & Freeman (1983) say, this is the only grammatical situation where 2<sup>nd</sup> person can be recognized as singular or plural.

<sup>2</sup> Pashto has two pronouns for second person singular. “Tu” is characteristically used in informal discourse while “Taso” is used in formal discourse context. The reflexive, however, is the same for both forms. “Taso” is also 2<sup>nd</sup> person plural.

<sup>3</sup> Third person pronouns are of two types in Pashto: Visible and Invisible (Abid 2020) or Participant and Non-Participant (Bukhari 1983). . When persons are present in the context and are addressed, third persons Visible/Participant come into usage and “dwe” is used. If they either are unavailable in the situation or are present but not addressed, they become Invisible/Non-Participant and “Haghwe” is used.

<sup>4</sup> Structural Case is assigned by the agreement system while inherent Case is licensed under government by a lexical projection.

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within binding government principle while the second “pa hapal” is inherent because it is not licensed by binding domain.

Carnie (2001) refers to the reordering of the adjuncts within an English sentence arguing that a constituent that functions as peripheral part of the sentence is movable and can be placed in a different syntactic position. Fabb (2002) also believes that optional parts of the sentence --generally termed as adjuncts-- are movable. Since emphatic reflexives feature as adjuncts, they can be assigned any possible syntactic position within a sentence except between a verb and a complement as stated in the principle of Interpolation<sup>1</sup>. Consider the following examples.

- 16 (a). “I saw John myself.”  
 16 (b). “Myself I saw John.”  
 16 (c). “I myself saw John.”  
 16 (d). “\*I saw myself John.”

The last sentence (16 d) has been marked ungrammatical because the adjunct “myself” intervenes between the verb “saw” and its complement “John.” Sentence 16(c) is the unmarked form among them on account of Adjacency principle<sup>2</sup>.

### 3.1.3 Movement of Emphasizer in Pashto

Like English, emphatic reflexives are mobile in Pashto. Consider the following examples.

- 17 (a). “Hagha pa hapla derwaza kolow kra.” (“He himself the door opened.”)  
 17 (b). “Pa hapala ye wur kolow ko.” (“Himself he the door opened<sup>3</sup>.”)  
 17 (c). “\*Hagha i wur kolow ko pahpala i.” (“He the door opened himself.”)

<sup>1</sup> This principle states that “Only an object can intervene between an object and its predicate” See Anderson (1977 *On Case Grammar* p. 278). Moreover, Adjacency principle states that a complement observes a strict adjacency requirement to the head. In other words, complements must be adjacent to the predicate though adjuncts need not to be. See Chomsky (1986, p. 266).

<sup>2</sup> The Golden Rules of Phrase Structure state that modifiers are attached near to the modifies. See Chomsky (1957 *Syntactic Structure*). “Myself” –the modifier “modifies “I”–the modiffee-- so must be placed near to it.

<sup>3</sup> When the emphasizer is placed in initial position, the subject is generally omitted and pronoun “yee” which is the weak form of nominative “Hagha” is used. Such pronouns never take subject slots in the sentence and are, therefore, also termed as clitic or second position clitic pronouns. Other morphological forms of weak pronouns are “mee ( I), “dee (you) and “mo (we).

17(d). “Hagha i wur pahpala i kolow ko.” (“He the door himself opened.”)

17 (c) is ungrammatical because Pashto does not admit emphazier in the end position. In 17 (d), the adjunct intervenes between the V “kolow ko” (opened) and the complement “wur” (the door). This structure, however, is still acceptable to Pashto speakers. This means that Pashto does not adhere to Interpolation Principle concerning emphatic reflexives.

### 3.1.4 Reciprocals in Pashto

Whereas English has two reciprocal pronouns (“each other” and “one another”), Pashto has one “yu bal.” Both reciprocals are replaced with “yu bal” in Pashto as illustrated in (19) below:

18. “They i helped each other i/one another i).”

19. “Haghwe i/dwe i da yu bal i marasta okra.” (“They i each other i/one another i helped.”)

The reciprocals function as the complement of V in (18) and its preposing to the initial position is not a syntactic viability. Hence, the ungrammaticality of (20) is explained.

20. “\*Each other helped them.”

Traditionally “each other” as Leech and Svartvik (2004, p. 383) believe is used for two persons and “one another” for more than two. Bolinger (1980, p. 56), however, refers to the reciprocal pronoun “each other” and says that it has lost its number quality. In (21), it is plural while in (22) it is singular.

21. “Banks now move money between each other electronically”

22. “Everyone took each other’s classes”

Example (19) shows that the reciprocal “yu bal” does not admit any number restriction in Pashto.

Like English, Pashto does not permit the reciprocal as a subject. This explains the ungrammaticality of (23).

23. “\*Yu bal dwe mrasta okra.” (“Each other they helped.”)

The weak form of the reciprocal can take the initial position:

24. “Da Yu bal ye mrasta okra.” (“Each other they helped.”)

## 3.2 Principle B

Principle B of the theory exonerates pronominals from binding domain restriction. This explains the ungrammaticality of the following sentence.

25. \* “Michael i bopped him i on the head with the zucchini.”

The NP Michael cannot be co-indexed with the pronominal “him” in (24) because it is free from binding restriction. Its binder must lie outside the binding domain. Also consider (26) and (27):

26. “Harry i thinks John j admires him i.”

27. \**“Harry i thinks John j admires him j.”*

In (26), a co-referential relationship has been established between “Harry” and “him” because the pronominal “him” is not the clause mate of “Harry.” Its co-indexation with “John”, however, will render the sentence unacceptable due to binding domain restriction.

Pashto is at par with English concerning Principle B of Binding. Syntactically, sentence (25) also does not admit pronominal in the binding domain of a Pashto sentence.

28. \**Sher Khan i toorai da da i/hagha i pa sar owahala. (Sher Khan i with a zucchini him i on the head bopped.)*

Similarly, (26) and (27) will be translated as (29) in Pashto.

29. *Sher Khan i khyal kai (che) Yousaf Khan j da hagha k/zama i/\*j tareef kai. (Sher i Khan thinks (that) Yousaf Khan j him k/me i/\*j admire<sup>1</sup>.)*

Ist person pronominals do not undergo change in indirect speech in Pashto. In (29), “hagha (him) will refer to somebody else, not Sher Khan or Yousaf Khan. The pronominal “zama (me) will be co-referential with Sher Khan. There is, however, no possibility of using a pronoun that may refer to Yousaf Khan in (29). This lends support to Principle B of Binding which says that pronominals as bindees must not observe clause mate restriction.

### 3.3 Principle C

This principle marks r-expressions as binding free: “An r-expression must be free,” says Chomsky (1986, p. 79). Nominals as r-expressions are not bound by binding domain as shown in the following examples.

30. “John i said that John j passed the test.”

31. \**“John i said that John i passed the test.”*<sup>2</sup>

32. “John i said that he i/ j passed the test.”

33. “He i said that John \*i/ j passed the test.”

In (31), John as r-expression cannot be co-indexed with the same nominal “John.” It, however, can be indexed with a different NP “John” as in (30). In (33), co-referentiality is not a syntactic viability because of binder and bindee order. Jackendoff (1972, p. 118) says that English follows forward pronominalization. “With the antecedent to the right (calls backward pronominalization), the pronoun must not command the antecedent.” This order, however, assumes backward pronominalization in identity statement such as (34).

<sup>1</sup> Pashto, unlike English, does not inflect verb in case of third person singular.

<sup>2</sup> This sentence also goes against the principle of Pronominalization which, according to John Ross (1967), is the pronominalization of NP2 in the embedded clause in case NP1 of the matrix clause is similar to it.

34. "He i is John i/\*j."

Following Binding theory, (34) is ungrammatical because syntactically, a binder must precede a bindee. The acceptability of (34) attributable to the fact that it is uttered with the intention that the NPs flanking the copula co-refer.

Jackendoff (1972) p. 118) also recognizes the role of stress in co-referentiality. He gives the following examples for illustration.

35. "John i hit Michael j and then BILL k hit him j."

NP1      NP2                  NP3

36. "John i hit Michael j and then Bill k hit HIM i."

NP1      NP2                  NP3

In (35), stress on Bill makes the bindee "him" coreferential with NP2 "Michael."

In (36), stress on "him" makes NP1 "John" the binder of the anaphor "him."

Sentence (30) and (31) will be (37) in Pashto.

37. "Asad i wayal che \*Asad i/ j test pass ko." ("Asad said that Asad \*i/j passed the test.

The repetition of the same noun in the same sentence is not licensed in Pashto. So (37) will be marked as unacceptable if the same noun (Asad) is repeated in the same clause. This means Pashto also follows Ross's Principle of Pronominalization.

Sentence (32) will be translated as (38) in Pashto.

38. "Asad i wayl che ma i/hagha j test pass ko." ("Asad i said that I i /he j passed the test.")

The different indexical representation shows that co-referentiality is possible between the binder "Asad" and the bindee "I" but not between "Asad" and "he." The reason for this pronominal shifting can be located in the fact that Pashto does not change 1st person pronouns into third in an indirect speech. This is one of the parametric variations that can be observed between English and Pashto.

Regarding (33), though Pashto is a right branching language, it conforms to forward pronominalization. A structure like (33) will be rejected in Pashto wherein the pronominal precedes the antecedent. Whereas English does not have another syntactic possibility, Pashto does have and that is first person pronominal may replace the NP "Asad" as given below:

39. "Hagha i wayl che ma i test pass ko." (He i said that I i passed the test.)

Pronominal shifting in indirect speech accounts for the grammaticality of (39).

Identity statement like (34) also follows backward pronominalization in Pashto as in (40).



40. “Da i/ Hagha<sup>1</sup> i Sher Khan i de.” (“He i Sher Khan i is.”)

Intonation also plays a very significant role in the interpretation of Pashto sentence. It will rather be not an overstatement to say that Pashto is a tonal language<sup>2</sup>. Sentences (35) and (36) will find expression as (41) and (42) in Pashto.

41. “Sher i Khan Asad j owakho aw by YOUSAF KHAN k de j/hagha j owakho. (Sher Khan i Asad j hit and then YOUSAF KHAN k him i hit.)

42. “Sher Khan i Asad j owakho aw by Yousaf Khan k DE/HAGHA i owakho.” (Sher Khan i Asad j hit and then Yousaf Khan k HIM i hit.”

In (41), stress on “Yousaf Khan” makes the bindee “de/hagha” co-referential with ‘Asad’ while in (42) the intonated “de/hagha” assumes co-indexation with “Sher Khan.”

These examples illustrate that intonation pattern can help in recognizing the bindee of a binder.

### 3.4 Locality Condition in Binding

Binding relation is sensitive to locality constraint. An NP is governed if it has a clause mate relationship with a governee.

43. “Bill i said that Harry j admired him i/\*j.”

In (43), Bill cannot be the governor of the pronominal “him” because condition B states that pronominals are free and they don’t follow locality domain constraint. As discussed in 3.2, third person “him” is ambiguous in English, but not in Pashto because the possible bindee of “Harry” is “zama” (me). The pronominal “zama (me) will be considered co-referential with the binder Sher Khan, not Yousaf Khan. If “me” is replaced with “de/hagha (him), this will be written as 43 (a).

43(a). “Sher Khan i wayl che Yousaf Khan j da da k/ hagha k tareef kare wo. (“Sher Khan i said that Yousaf Khan j him k admired.)”

43 (a) shows that pronominal “da/hagha” (him) will share co-indexation with neither Sher Khan nor with Yousaf Khan. Rather, it will have another referent say Gulab Sher in the given situation. These examples illustrate that Pashto assigns peripheral significance to Locality constraint. This is partly because it does not pronominalize the speaker of the utterance as third person pronominal.

Similar S-structure like (43) will be (44):

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<sup>1</sup> As discussed in section Reciprocals in Pashto, Pashto has two types of third person pronouns: Participant and Non-participant.

<sup>2</sup> There are, for instance, no marked auxiliaries for changing a sentence into an interrogative structure. It is done with rising tone: “TA wur kolow ko?”(YOU the door opened?) Such interrogatives, however, are not like English tonal questions which evoke positive response from the listener. It is a yes/no question in Pashto and the speaker does not bear any presupposition while asking tonal question in Pashto.

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44. “Yousaf i aw Sher Khan j dwaro perzawal okro , aw Akher hagma i/j ye raoperzo.” (Yousaf i and Sher Khan j both quarreled, and finally he i/j was beaten.”

The pronominal “hagma” in (44) will be ambiguous and can refer to Yousaf or Sher Khan.

Bukhari (1983, p. 73), however, contends that Pashto does not admit pronominalization in such cases. Rather a nominal form is used in order to dispel any ambiguity as in (45).

45. “Yousaf i aw Sher Khan j dwaro perzawal okro, aw akher Sher Khan j ye raoperzo.” (Yousaf i and Sher Khan j both quarreled, and finally Sher Khan j was beaten.”

Having said it, it means that binding does not happen in such cases. This, however, is a too strong claim and speakers of Pashto do use such structures with implied bindee in a given context.

The locality condition also operates in non-finite clauses. As an illustration, consider the following example.

46. “Harry i wants [himself i to be a doctor].”

Applying the condition of binding domain, it becomes evident that the governee “himself” must not be made co-referential with the governor “Harry” because these NPs are not clause mates: the governee is in non-finite clause while the governor is in finite clause. But the co-indexation between the two has still been carried out as evident from their indexical representation. How does Binding theory account for such irregularities? Binding theory regards the subject of a non-finite clause as Caseless. It does not receive any Case from the predicate “want.” Rather it is Case marked from outside—the subject of the finite clause assigns accusative case to it. It is because of this syntactic reason that the subject of a non-finite clause always appears in accusative form as shown in the example below:

47. “[Harry wants] [me/\*I to eat a salami.]”

In (47), the subject of the matrix clause “Harry” governs the subject of the infinitival clause “me.” This means that the anaphor “himself” does not fall in the locality domain of the binder “Harry” in sentence (46) but the NPs are co-indexed because of the cited reasons.

(46) will take the following grammatical form in Pashto.

48. “Sher Khan i ghawari [che PRO<sub>i</sub> doctor she].” (Sher Khan i wants [PRO<sub>i</sub> to doctor be.)

Applying PRO theorem<sup>1</sup>, we can say that PRO in this case is pronominal “hagha.” So PRO, if phonologically realized, will appear “hagha” as in (49).

48. “Sher Khan i ghawri [che hagha i doctor she.]. (Sher Khan i wants [him i to doctor be/himself i to be a doctor.]”

The pronominal “hagha” features as the subject of the infinitival clause but is governed by the subject “Sher Khan” of the matrix clause. This validates the PRO theorem and verifies the point that the subject of the infinitival clause receives its Case from the verb of the matrix clause “ghawri (want)” in this case. Furthermore, the reflexive can also feature as a subject of the infinitival clause as in 49:

49. “Zue ghwaram [che zaan tayaar kam.]” (I want [myself to be ready.]”

Since Pashto has one morphological form for reflexives, therefore the nominative or accusative form of “zaan” cannot be independently verified.

### 3.5 C-Commanding in Binding Theory

Binding theory also mentions C-commanding a necessary condition for co-indexation. Consider the following sentences.

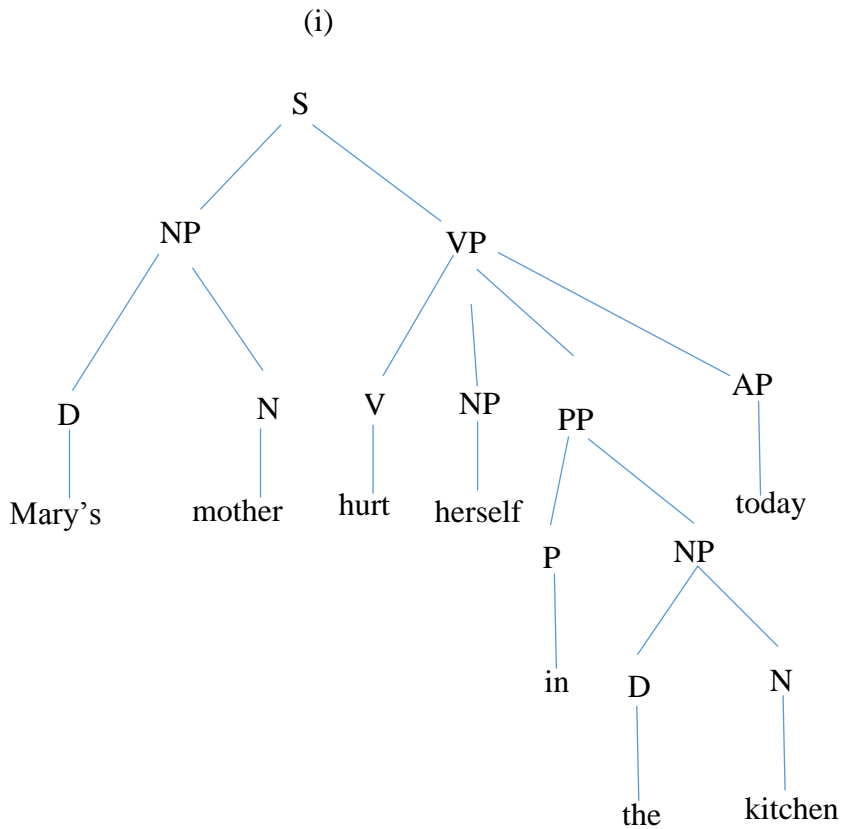
50. “Mary’ i s mother j hurt herself j in the kitchen today.”  
51. \* “Mary i’ s mother j hurt herself i in the kitchen today.

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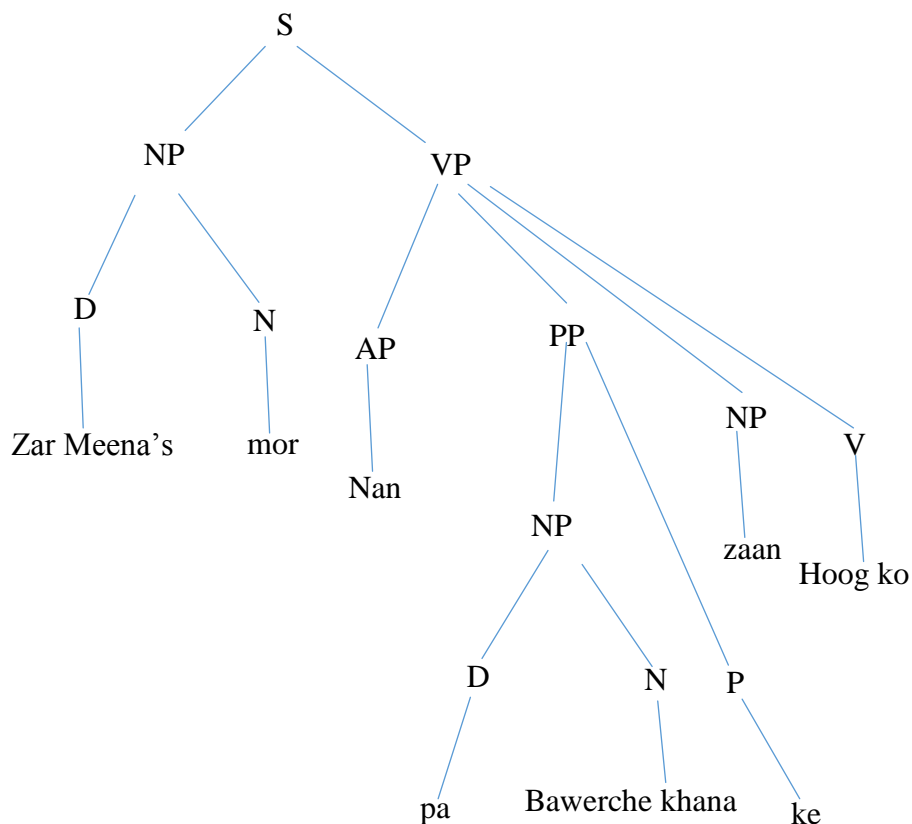
<sup>1</sup> The subject of the infinitival clause has been deleted under Equi-NP Deletion operation which states that the first NP of an embedded clause is deleted if it matches the NP of the clause containing it. In the sentence “Mary wants to cut the salami,” the subject of the embedded clause [to cut the salami] has been deleted under the identity with the subject of the matrix clause “want.” Brame (1976, p. 87)

In other words, there is a special kind of phonologically unrealized NP acting as a subject of the to-infinitive embedded clause called PRO which stands for “null pronoun. This dummy PRO, however, has very restricted distribution. It can be the subject of a non-finite clause but it cannot be the subject or the object of a finite clause. PRO theorem demonstrates that it can appear only in ungoverned position. See Chomsky (1986, p. 183).

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(ii)



A C-commanding relation is possible between sister nodes or between sister and nieces or between sister and aunts. But it is never possible between mother and daughter or between sister and cousins. As can be observed in figure (i), the anaphor “herself” is the niece of the binder “mother,” a c-commanding relation, therefore, has been established between the two.

(50) will be written as (52), not as (53) in Pashto:

52. “Da Zar Meene i mor j nan pa bawerche khana k zaan j hoog ko. (Zar Meena i’s mother j today in the kitchen herself j hurt.)

53. “\*Da Zar Meene i mor j nan pa bawerche khana k zaan i hoog ko. \*(Zar Meena i’s mother j today in the kitchen herself i hurt.)

The unacceptability of (53) is due to c-commanding. Since the anaphor “zaan”

must be c-commanded by Zar Meena's mother, not Zar Meena because Zar Meena branch is the cousin of "Zaan" branch as illustrated in figure (ii). Zar Meena's mother, on the other hand, is the aunt of anaphor "zaan" and hence, c-commanding is possible.

### 3.6 Gender Concord

Binding theory also refers to the agreement of an anaphor with its antecedent in gender.

In sentence (54) the anaphor "herself" does not agree in gender with the antecedent "John." The sentence has been marked ungrammatical because the binder "John" and the bindee "herself" are not in grammatical concord.

54. "John i hurt herself j."

Sentence (54) will be expressed as (55) in Pashto.

55. "Sher Khan i zaan i hoog ko." ("Sher Khan i himself i /\*herself j hurt.")

However, it must be observed that reflexives are not inflected for number and gender in Pashto (see section 3.12). This means that sentence (54) can be an acceptable structure in Pashto because the anaphor "zaan" can be co-indexed with the antecedent Sher Khan. Concerning genderization, Pashto is very rich as compared to English. It genderizes all nominals whether they are human or non-human. Besides lexical genderization, the gender of a noun, says Abid (2020, p. 27) is marked by an adjective in Pashto. So orange, watermelon, chair etc., are feminine while tangerine, melon, bed etc., are masculine in Pashto. These nominals, therefore, will take gendered bindees as compared to English which take gender neutral bindees. Consider the following examples:

56. "Ma yu khoog kino okhoro." (I a sweet tangerine ate.)

57. "Ma yu khoowaga malta okhara." (I a sweet orange ate.)"

In (56), the adjective "khoog" (sweet) marks the NP "kino" (tangerine) masculine while the reverse happens in case of (57) wherein "khoowaga" marks the nominal "malta" (orange) as feminine. Their bindees will also be marked as masculine and feminine as given below.

58. "Kino i pa khapal wana ke hkale hkare." (Tangerine i in his i tree beautiful seem).

59. "Malta i pa khapala i wana ke hkale hkare." (Orange i in her i tree beautiful seem.)"

English, in this respect, is pretty poor because it assigns gender to human nouns only. The genderization of nouns, according to Chafe (1970, p.140), is carried out when a non-human nouns is either personified as in (51) or is represented as a proper noun as in (61).

60. "I saw a squirrel climbing a tree with his mouth full of building materials."

61. "The elephant i broke its i leg."

But

62. “Jumbo i broke his i leg.”

Nouns like “ship, car, country” and “airplane” are grammatically marked as feminine, not linguistically as females.

In case of “car” and “country,” genderization is done due to emotional attachment that the speaker has with the nominals. In (63), the speaker perceives “car” as an object of affection and consequently, it has been feminized. When it is void of emotional factor, it is treated as neutral noun as in (64).

63. “Look at my baby car i. Isn’t she i lovely?”

64. “The car i hit the passerby with *its i* fender.”

“Ship”, according to Bolinger (1980, p. 96), was perceived as a workhorse that denoted the affection of the male crew towards it.

These nouns, however, are lexically marked for gender in Pashto. “Car, country, ship” and “airplane” are marked as masculine as illustrated below:

65. “Sher Khan ghut gade waghasto.” (“Sher Khan big car<sup>1</sup> bought.”)

66. “Pakistan zama hoog watan de.” (“Pakistan my sweet country is”).

### 3.7 Gerundive Structures

Reuland and Everaert (2001, p. 656) believe that the lexical properties of predicates and the distribution of anaphors is entirely unexpected from the perspective of the standard Binding Theory. “Wash” has both reflexive and transitive lexical entries. Sentence (67) has reflexive reading only:

67. “Washing<sup>2</sup> is healthy.”

(67) can be represented as (69).

69. “Washing [oneself] is healthy.”

However, other predicates like “hate” are not marked for reflexive interpretation:

70. “Hating (only someone else) is unhealthy.”

The corresponding Pashto terms for washing are “Wenzal/ lamabawal” and “lambe del.” Bukhari (1983) contends that “L” and “dl” ending *masdars* are used

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<sup>1</sup> Pashto does not admit an obligatory determiner in case of singular countable nouns.

Unlike English, a singular countable noun can be indeterminate in Pashto.

<sup>2</sup> Pashto term for Gerund is “masdar.” Most of the “L” ending words are masdar like “katal (seeing), “tlal” (going), “wahal” (beating), etc. Some also take suffix “kawal” (doing), or “kedal” (cause to be). Examples of the latter “masdar” are “kar kawal” (doing), “wada kedal” (solemnizing marriage) etc. Abid (2020, p. 104) calls them infinitives and believe that they are marked as plural masculine nouns in English because infinitives take plural verbs:

(68). “Dwe khapolo k wakhl okral.” (“They each other beat.”) “Okral (past inflected verb)” in (68) takes infinitive “wahl (beat).” “Okral” is a plural masculine verb.

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interchangeably. Gerunds like “kharabwal” and “kharabedal” (spoiling) are same. One, however, can notice a difference between the two. Whereas the first denotes an automatic process, the second usually involves volition. Consider

71. “Kharabawal (da zan)” “(Spoiling (of oneself))”  
 72. “Kharabedal (da bal cha)” “(Spoiling (of others))”

Following this course of discussion, the gerund “washing” may not necessarily take a reflexive. It may take an anaphor or a pronominal depending on its ending in Pashto. As illustration, consider

73. “Lawbal (da zan/da bal) zarori de.” “(Washing (oneself/of others) is must.)”  
 74. “Yarawal (da bal) nara wa de.” “(Frightening (of others) is unfair.”  
 75. “Yaradel (da zan) nara wa de.” “(Frightening (of oneself) is unfair.)”

Hence the following sentence will take “del” gerund with past suffix, not “L”:

76. “Za oyeredam.” “(Me frightened).”

### 3.8 Locative PPs

As noted by Reuland and Everaert (2001, p. 654), pronominals in locative PPs may be bound in their governing category, thus violating condition B, as in (77).

77. “John i saw a snake near him i/? himself i.”

(77) will be written as (78) in Pashto

78. “Sher Khan da zaan hwata mar oledo.” “(Sher Khan himself near snake saw).”

(78) indicates that condition B of Binding is not violated in Pashto in locative PPs because the bindee in this case is an anaphor, not a pronominal. The emphatic form, however, is different. Consider the following:

79. “Ma da zaan hwata maar oledo.” “(I i myself/\*me i near a snake saw.)”

### 3.9 Locally bound anaphors

Reuland and Everaert (2001, p. 663) have mentioned the violation of Condition A in English in the following examples.

80. “There were five tourists in the room apart from myself.”  
 81. “Linguists like yourself are a godsend.”

In (80), the anaphor “myself” is not governed by any binder. Hence, it is free. This violates Condition A which states that anaphors are bound. In (81), there is no governed binder of the bindee “yourself” which is again not in accordance with Condition A of the binding theory. These examples look like (82) and (83) in Pashto.

82. “Zama na alawa pa kmra k peinza salayan wo.” “(Me from apart the



room in five tourists were.)”

83. “Sta pa shan pa jaba pohendoke qimati halaq ve.” “(You like linguists are a godsend.)”

As can be seen, both (82) and (83) contain pronominals –“me” and “you” respectively. This means that Pashto admits pronominals in such situations, not anaphors. (82) and (83) conform to the principle A of binding because pronominals are not bound by the binding domain.

#### **4. Conclusion**

Pashto conforms to the three principles of Binding theory with some variations. Like English, it follows Principle A of Binding by taking bound anaphors. Its anaphors, however, has two morphological forms whereas English has one. It also conforms to English in the movement of the emphaziers though it has a different directional or clitic pronons like “mee, ye,” etc. which are used in both binding and emphatic structures. It also follows English in the principle B of Binding and places no syntactic restrictions on the placement of pronominals in the binding domain. Pashto recognizes most of the paradigms of Principle C of Binding and treats R-expressions as binding free. It adheres to forward pronominalization pattern and places the antecedent to the right and the pronominal to the right. Like English, tone can be bindee determinant in Pashto and can bring about interrogative structure without any subject-auxiliary inversion as it is done in English. It also is genderly-rich language and inflects human and non-human nouns for gender. It, however, does not strictly adhere to Locality constraint in Binding. It also follows C-commanding though conformity in connection to gerunds is something sketchy and cannot be claimed with any conclusive evidence.

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