A Minimalist Account of Structural Case Assignment in Pashto Unergative Constructions

Talat Masood, Mujib Rahman
Department of English & Applied Linguistics, University of Peshawar, Pakistan

Abstract
Pashto unergatives, like other Pashto constructions, are characterized by split-ergativity with reference to tense; thus the subject nominal shows the nominative Case¹ in the present and the future tenses, and the accusative Case in the past tense which requires the assignment of the two Cases by two different functional heads. Following the minimalist idea of agreement, we propose, for Pashto unergative constructions, that nominative Case to subject nominals is assigned as a result of ϕ-features agreement between the functional head T and the subject nominals, while accusative Case is assigned as a result of ϕ-features agreement with the functional head Voice; as $v$ in the past tense Pashto constructions is defective in the Chomskian (2001) sense. The overall conclusion for Case assignment in Pashto unergative constructions is that the minimalist idea of agreement between a nominal and a functional head as responsible for structural Case assignment is equally applicable to Pashto unergative Constructions.

Keywords: Structural Case; minimalism; assignment; nominative; accusative

Introduction
Nouns and pronouns, with their varied Case forms, have always been of interest in the minimalist program, due to the latter’s proclaimed aim of knowing the ‘why’ of syntactic phenomena. As such, studying structural Case assignment in different constructions has been a major aspect of the minimalist program. Unergative constructions have attracted generative linguists because of $v$ not being able to assign the accusative Case due to being defective in Chomskyan (2001) sense.
Added to this can be the behaviour of Pashto unergative constructions where subjects in the present and the past tenses show different Case markings referred to as split-ergativity. For structural Case assignment in Pashto unergatives this paper hypothesizes that $\phi$-features agreement between the functional head $T$ and a nominal results in assigning the nominative Case to that nominal, while $\phi$-features agreement between the functional head Voice and a nominal results in assigning the accusative Case to that nominal. In addition, this paper proposes a morphological hypothesis, which is a sort of bye-product of our endeavour, namely, that, in Pashto, agreement for the nominative Case assignment is visible while agreement for the accusative Case is invisible.

This paper unfolds as follows: section 1 introduces the topic. Section 2 gives a thumbnail sketch literature review of unergatives and structural Case assignment in the minimalist program. Section 3 discusses the unergatives in Pashto. Sections 4, 5, and 6, describe structural Case assignment in Pashto unergatives in the three tenses of the present, the past and the future, respectively. Section 7 concludes the paper.

1. Unergative Constructions and Structural Case Assignment in the Minimalist Program

An important step in the generative enterprise vis-a-vis the intransitives has been Perlmutter’s (1978) Unaccusativity Hypothesis, which says that the subject of unaccusative verbs, not being a true agent, originates in the complement to $V$ position, while the subject of unergative verbs starts in the canonical subject position; i.e., the specifier VP/$\nu P$. The most important aspect of unergative verb constructions, from the minimalist perspective, has been the inability of its $\nu$ to assign Case to the nominals. Thus, $\nu$ in unergative constructions is technically defective (Chomsky, 2001) as it lacks $[u\phi]$ features. This is shown by the fact that the canonical internal argument position to which $\nu$ assigns Case remains empty. Interestingly, unergative verbs present the opposite side of the problem, the generative grammarians face, with reference to copular constructions. Syntacticians have been at pains to find $V$ or $\nu$, because of the obvious absence of the $\theta$-roles for the nominal, to some extent (see Masood, 2014) for detailed discussion); in unergative verb constructions, on the other hand, $V$ and $\nu$ are both present but there is no DP to take the role of the internal argument.

Different structures have been proposed to deal with unergative verb constructions. Adger (2004:140), after accommodating the UTAH (Uniformity of Theta Assignment Hypothesis) into its structure, has given the following structure for the unergative verb $laugh$. 
We will make use of this structure, along with the idea of Voice head (Kratzer, 1996; Collins, 2005; Roberts, 2010, n.d.; Holmberg, 2007) for Pashto past tense unergative constructions.

For structural Case assignment itself, in the minimalist program, different ideas have been proposed: a) features agreement between a functional head and a nominal is responsible for structural Case assignment (Schütze, 1997; Carstens, 2001; Bejar, 2003; Tanaka, 2005; Chomsky, 2000, 2001, 2005, 2006; Alexiadou & Anagnostopoulou, 2006; Bobaljik & Branigan, 2006; Richardson, 2007; Legate, 2008; Baker, 2008; and forthcoming; Baker & Vinokurova, 2010); b) Case is an uninterpretable tense feature [uT] (Pesetsky & Torrego, 2001); c) mood and modality are responsible for structural Case assignment (Aygen, 2002); d) aspect assigns structural Case (Itkonen, 1976; Ramchand, 1997; Arad, 1998; Kiparsky, 1998; Torrego, 1998; Svenonius, 2001, 2002; Kratzer, 2004; and e) person and location are responsible for Case (Ritter & Wiltschko, 2009). Thus, if looked at in the light of our hypotheses for Pashto unergative constructions, they are a version of ‘features agreement between a functional head and a nominal’ — mechanism for structural Case assignment.

2. Unergative Constructions in Pashto

The dominant majority of Pashto intransitive verbs are unergatives. Like other languages, the main difference between unaccusative verbs and unergative verbs, in Pashto, lies with reference to the initial placement of the subject DP. The subject of unaccusative verbs in Pashto, not being a true agent, originates in the complement to V position, while the subject of unergative verbs starts in the canonical subject position, i.e. specifier VP/vP. Morphologically, the subjects of unergative verbs in Pashto show nominative Case in the present and future tenses while the subjects of unergative verbs in the past tense show accusative Case:
In addition, the verbs in the present and future tenses show agreement with their subjects while the unergative verbs in the past tense do not show agreement with their subjects, as is shown by the examples above. Detailed treatment is meted out to Case assignment, Case marking, and agreement patterns, with reference to the three tenses of present, past, and future, in the next three sections.

3. Structural Case Assignment in the Present Unergative Constructions

To show how structural Case is assigned in Pashto unergative constructions, we give an unergative construction, followed by its minimalist derivation and explanation of each step:

3. **Aslam** \( \text{Aslam} \)
   \( \text{khandi.} \)

   ‘Aslam laughs.’

In this sentence, the unergative Pashto verb, in its base form \( \text{khand} / \text{khand}^2 \), bearing the c-selectional feature \([V]\) and the uninterpretable feature \([uD]\), finds no DP in its complement position to merge with. Semantically, the verb \( \text{khand} / \text{khand}^2 \) is a mono-argumental verb, requiring one argument as an agent. The little \( v \) having \([u\text{Infl}]\) and lacking \([u\phi]\) merges with VP, because of Hierarchy of Projections Principle\(^3\), to form \( v' \). Technically, \( v \) here is a defective probe in the Chomskian (2001) sense as it lacks \([u\phi]\) features, hence the ability to assign Case. In English, the movement of the verb to \( v \) follows this merge, however, in Pashto the verb remains in the VP. The \([uD]\) of the verb that is still unchecked/ deleted gets projection on \( v' \). To satisfy this feature, the subject DP **Aslam** having \([D, u\text{Case}]\) features merges with \( v' \); and, thus the \( vP \) is formed.

The little \( v \) has the uninterpretable tense feature \([u\text{Infl}]\) and it ultimately gets projection on \( vP \). A functional category T, empty in this case, having \([^*uD, u\text{clause type, present, u\phi}]\) features, merges with the \( vP \) to form \( T' \). This merge is very important as it results in many things. Firstly, the tense of the \( v \) is checked/satisfied
as ‘present’. Secondly, an agree relation establishes between $T$ and the nominal, in spec $vP$. $T$ has the uninterpretable phi-features in terms of person, number and gender, thus acting as a probe, while the nominal has the interpretable features of person, number and gender, and acts as a goal. At the time of agree the two stand in the following relation:

$$[T \{P:?; N:?; G:?\}] [Aslam \{P:3; N:SG; G:M; CASE:?\}]$$

Because of the agree relation matching and valuation occurs and $T$ gets the values of 3rd person singular male. It is important to note that the interpretable phi-features in the present tense Pashto unergative sentences do not get pronounced on $T$. So here, the agreement remains invisible. Along with the tense value ‘present’ it gets pronounced on $V$. As a result, the verb gets the spell-out form as $khandi$ instead of the base forms $khand\|\|khand$.

Thirdly, we had hypothesized that phi-features agreement between $T$ and a nominal in Pashto results in nominative Case assigned to the nominal. Here we have $\phi$-features agreement between $Aslam$ and $T$, in terms of person, number and gender, and the $[u\phi]$ of $T$ are valued as 3SGM, while in return nominative Case is assigned to $Aslam$. Therefore, the subject DP $Aslam$ gets nominative Case. That the DP $Aslam$ does not have overt morphological markings for nominative Case is because of the nature of Pashto nouns, which, in most cases, do not bear overt markings for nominative or accusative Cases.

A natural question can be raised as why agree does not establishes between $Aslam$ and the little $v$. The little $v$ comes earlier in the derivation and consequently must be active before $T$. However, we see that $T$ not $v$ establishes agree relation with the DP. The main explanation for this phenomenon can be that the DP $Aslam$ lies upwards the little $v$, and lies in the c-command domain of $T$. As is assumed that a probe can search for a goal downwards i.e. in its c-command domain and not upwards, therefore, this situation substantiates the assumption. More importantly, this situation/configuration substantiates the assumption that $v$ here is defective (Chomsky, 2001), lacking $[u\phi]$ features. As it is defective hence it remains unable to establish an agree relation with any nominal.

Now, let us get back to the final stage of our derivation. We had said that $T$ has strong uninterpretable feature $[^uD]$, commonly referred to as the Extended Projection Principal (EPP) (Hornstein, Nunes, & Grohmann, 2005), and for the convergence of the derivation this feature needs to be checked/satisfied. Movement of the subject DP occurs from spec $vP$ to spec $T$ due to this strong feature of $T$. Following Adger (2004), the enclosure of the DP $Aslam$ in symbol $<$ shows that
the DP undergoes movement. The strike through [uD] shows that the strong uninterpretable [uD] feature of T has been checked/deleted. The [uclause type] of T still remains unchecked and C having [Decl] feature merges with the TP, to check/delete this feature. Thus, our CP gets completed as is shown below:

![Diagram]

Figure 2: Complete derivation for the unergative construction Aslam khandi.

As the subject in the example above is a third person singular, therefore, to show that the same pattern prevails in other unergative present tense Pashto constructions as well, we are giving examples of unergative verbs where all the pronouns along with their Cases have been used:

4. Hagha khandi.  
   he/she.distant.NOM khandi.  
   laugh.PRS.3  
   ‘S/he laughs/ is laughing.’  
   (The same form of the verb is used for the continuous and the indefinite.)

5. Hagot khandi.  
   they.distant.NOM khandi.  
   laugh.PRS.3  
   They laugh/ are laughing.’

6. Day khandi.  
   he.near.NOM khandi.  
   laugh.PRS.3  
   ‘He laughs/ is laughing.’

7. Da khandi.  
   she.near.NOM khandi.  
   laugh.PRS.3  
   ‘She laughs/ is laughing.’

8. Doi khandi.  
   they.near.NOM khandi.  
   laugh.PRS.3  
   ‘They laugh/ are laughing.’
9. Thə you.NOM khanday. laugh.PRS.2SG
   ‘You laugh/ are laughing.’
10. Thaso you.NOM khandai. laugh.PRS.2PL
    ‘You laugh/ are laughing.’
11. Zə I.NOM khandum. laugh.PRS.1SG
    ‘I laugh/ am laughing.’
12. Moong we.NOM khando. laugh.PRS.1PL
    ‘We laugh/ are laughing.’

Two or three things emerge from these examples. Firstly, all the pronouns exhibit nominative Case. Thus, it substantiates the hypothesis that phi-features agreement between T and the nominal results in nominative Case, assigned to the subject DPs here. To substantiate this point further, we now give examples where the subjects bear accusative Case and see whether they are grammatical or not. If grammatical then the hypothesis is in serious troubles; however, if ungrammatical then it further substantiates the hypothesis.

    laugh.PRS.3
    ‘He laughs/ is laughing.’
    laugh.PRS.3
    ‘She laughs/ is laughing.’
15. *Ma I.ACC khandi. (cf. Ma khandal)
    laugh.PRS.1
    ‘I laugh/ am laughing’.

All these three examples show that if the pronoun bears accusative Case, then they are grammatically incorrect. Thus, it substantiates the claim/hypothesis.

4. Case Assignment in the Past Tense Unergative Constructions

Now, we are going to discuss Case in the past tense Pashto unergative constructions and see whether the same patterns of agreement and rules for Case assignment exist or not. We take an unergative Pashto example, as we had taken in the section on present tense unergative verbs with the change that the tense is past rather than the present:

    Aslam.ACC laugh.PST
    ‘Aslam laughed.’
The derivation for the past tense unergative constructions differs from their present and future tense counterparts in some important respects, due to the split-ergative nature of Pashto language. The derivation is the same until the \( vP \) stage. As in the past tense and passive voice Pashto constructions \( v \) is defective (Chomsky, 2001), hence it is unable to assign Case due to its lack of \([u\phi]\) features; however, nominals in spec \( vP \) position, in the past tense unergative constructions, do carry accusative Case. Therefore, we introduce Voice functional category (see Masood & Rahman (2013) and Masood (2014) for the introduction of Voice in Pashto constructions). The functional category Voice (Kratzer, 1996; Collins, 2005; Roberts, 2010, n.d.; Holmberg, 2007) merges with the \( vP \) to form Voice’. Hierarchy of Projection Principle facilitates the merge of \( vP \) and Voice. An agree relation establishes between Voice and the subject DP in terms of person, number, and gender \( \phi \)-features. Because of the agree relation, the phi-features of the Voice are valued as 3SGM, while the subject DP Aslam is assigned accusative Case:

![Figure 3. Derivation for the past unergative construction, Aslam wokhand ǝl.](image)

The \([u\text{lnfl}]\) of \( v \) finds projection on VoiceP, and T having strong uninterpretable \( [*uD] \) or EPP, uninterpretable \( [\text{uclause type}] \), and interpretable tense ‘past’ features merges with the VoiceP to satisfy the \([u\text{lnfl}]\). It is important to mention here that the T in the past tense Pashto unergative verb constructions lacks the \([u\phi]\) feature. To check/delete the EPP or \( [*uD] \) the subject DP moves to spec TP position. C
having interpretable [Decl] feature merges with TP to check/delete the [uclause type], and thus the CP is completed.

In order, to substantiate the hypothesis that agree between Voice and the subject DP results in accusative Case, we are giving some examples of unergative verbs, where all the pronouns along with their Cases have been used:

17. Haghǝ
   he.distant.ACC
   laugh.PST
   ‘He laughed.’

18. Haghay
    she.distant.ACC
    laugh.PST
    ‘She laughed.’

19. Hagoi
    they.distant.ACC
    laugh.PST
    ‘They laughed.’

20. Dǝ
    he.near.ACC
    laugh.PST
    ‘He laughed.’

21. Dǝ
    she.near.ACC
    laugh.PST
    ‘She laughed.’

22. Dǝ
    they.near.ACC
    laugh.PST
    ‘They laughed.’

23. Thǝ
    you.ACC
    laugh.PST
    ‘You laughed.’

24. Thaso
    you.ACC
    laugh.PST
    ‘You laughed.’

25. Ma
    I.ACC
    laugh.PST
    ‘I laughed.’

26. Moong
    we.ACC
    laugh.PST
    ‘We laughed.’

Let us now consider some examples wherein we use pronouns in the nominative Case with unergative verbs in the past tense and see what happens. In this respect, it is important to mention that some pronouns, especially in the plural form, have the same form for nominative and accusative Case. To avoid creating confusion for non-native speakers, we would not use such pronouns in the examples that follow:

27. “Haghǝ
    he.distant.NOM
    laugh.PST
    ‘He laughed.’
These two groups of examples reveal a couple of things. First, the examples in the second group consisting of no.28 through 32, show that the subject DPs of unergative verbs in the past tense do not have nominative Case and thus stand in stark contrast to the DPs in the present and future tenses. All the sentences became ungrammatical when we used the subject DPs in the nominative Case. Second, the first group of examples, 18 through 27, shows that the verbs do not agree with their subjects. Thus, they are different to the examples in the present tense section where the verbs agree with their subjects.

5. Case Assignment in the Future Tense/Time Unergative Constructions

Rules for Case assignment in Pashto future tense unergative constructions remain the same as those for the present tense. To see that this is the case, we take the same example that we had taken for the present and past tenses, with the only change that the tense of the example is the future tense.

The derivation for the future clause is the same except with some minor differences. As this particular example has continuous aspect, therefore, we adjoin the modal clitic *ba* with the ProgP to form the extended ProgP. The [unfl], which is still not checked / deleted, finds projection on the extended vP. The rest of the processes are the same as we have described for the present tense. For our purposes, the most important step is that of Case assignment. An agree relation establishes between *Aslam* and T in terms of ϕ -features and the ϕ -features of the probe T are valued by the goal *Ahmad* as 3SGM, and in return nominative Case is
assigned to the subject DP Aslam. This agreement does not get pronounced on T; rather it finds morphological manifestation on V, in this particular instance.

![Diagram](image)

**Figure 4**: Derivation for the future tense unergative construction Aslam ba khandi

The nominal in the above example is a noun, while it is common in Pashto language that nouns normally do not show morphological markings for nominative and accusative Cases. Therefore, we are giving examples of unergative verbs where pronouns have been used to show and substantiate the claim that agree between T and the subject DP in terms of phi-features results in nominative Case:

33. *Hagha*  
   he/she.distant.NOM  
   ‘S/he will be laughing.’

34. *Hagoi*  
   they.distant.NOM  
   ‘They will be laughing.’

35. *Day*  
   he.near.NOM  
   ‘He will be laughing.’

36. *Da*  
   she.near.NOM  
   ‘She will be laughing.’
37. **Doi** ba khandi.
   they.near.NOM will laugh.3
   ‘They will be laughing.’
38. **Tha** ba khanday.
   you.NOM will laugh.2SG
   ‘You will be laughing’.
39. **Thaso** ba khandai.
   you.NOM will laugh.2PL
   ‘You will be laughing.’
40. **Za** ba khandum.
   I.NOM will laugh.1SG
   ‘I will laugh.’
41. **Moong** ba khando.
    we.NOM will laugh.1PL
    ‘We will be laughing.’

These examples show that all the pronouns exhibit nominative Case. Thus, it substantiates the hypothesis that phi-features agreement between T and the nominal results in nominative Case. To substantiate this point further, we give examples where the subjects bear accusative Case and see whether they are grammatical or not.

42. * **Hagh** ba khandi.
    he.ACC will laugh.3
    ‘He will laugh/ will be laughing.’
43. * **Haghay** ba khandi.
    she.ACC will laugh.3
    ‘She will laugh/ will be laughing.’
44. * **Ma** ba khandum.
    I.ACC will laugh.1SG
    ‘I will laugh/ will be laughing.’

These three examples show that if the pronouns bear accusative Case in the future tense unergative constructions, then they are grammatically incorrect. Thus, it substantiates the claim/hypothesis that in the future tense Pashto unergative constructions agree between T and the subject DP results in assigning nominative Case to the subject DP.

The visible/ invisible agreement pattern in the examples for the present, past, and future tense sections, needs attention. In the present tense examples, all the verbs agree with their subjects. In the past tense examples, no verb agrees with its subject. In the future tense, all the verbs agree with their respective subject DPs. Thus, all
these results substantiate our morphological sub-hypothesis that in Pashto agree between T and the relevant nominal for nominative Case assignment becomes visible on v or V, or both. While agree for accusative Case assignment between v or Voice and the relevant nominal does not become visible in the morphological component.

6. Conclusion

Thus, in this paper we analysed the assignment of structural Case in Pashto unergative constructions. We observed that subjects in the past tense showed accusative Cases while subject DPs in the present and future tenses showed morphological forms for nominative Cases. We ascribed this difference to the presence/absence of the functional head Voice in Pashto unergative constructions. This paper also substantiated the hypotheses that we had propounded in the beginning of the paper. These hypotheses were, $\phi$-features agreement, in Pashto unergatives, between the functional head T and a nominal results in assigning nominative Case to that nominal, while $\phi$-features agreement between the functional head Voice and a nominal results in assigning accusative Case to that nominal. The derivations/structures suggested for unergative constructions in the present, past, and future tenses were able to describe adequately different Pashto unergative constructions. In addition, in this paper, we saw the substantiation of a morphological hypothesis, namely, that agreement for nominative Case assignment, in Pashto language, between T and the relevant nominal is morphologically visible while agreement for accusative Case assignment between v or Voice and the relevant nominal remains invisible.

Notes

1 Normally, a capital C is used in spelling for syntactic (abstract/structural) Case, while a small c is used in spelling for semantic cases, morphological cases, and cases in general.

2 Among Pashto grammarians, there are two schools of thought on the nature of the base form of the verb. Raverty (1855) and most of the traditional grammarians after him believe that moshor which can be roughly translated as infinitive form, is the base form of the verb in Pashto. This form of verb is characterized by the morphological marking of $\mathcal{L}$ at the end of the word. This is similar to the English alphabet L in its phonetic realization. However, Tegey & Robson (1996) came with the idea that infinitive is not the base form of the verb, rather different verbs have different base forms, having different endings. So following the majority of grammarians our verb will have the base form lekol, while following Tegey & Robson (1996) our verb will have the base form leek. On a personal note, we think that the formulation of Tegey & Robson (1996) may have some sophistication but the formulation of the rest of the grammarians has the advantage that it is very easy to learn. To avoid any controversy and to give a comprehensive picture, we have given both forms of the verb.
Hierarchy of Projection Principle is an innovation on the part of Adger (2004). This is what he says about Hierarchy of Projection:

In order to keep the relation between little \( \nu \) and VP conceptually distinct from selection, we will just assume that there is a special Hierarchy of Projections, such that whenever we have a little \( \nu \), it always has a VP complement.

In an intuitive sense, little \( \nu \)P is an extension of the projection of VP, in that it is still verbal, but it adds further semantic information. We will state the Hierarchy of Projections as follows:

\[(112) \quad \nu > V\]

If the Hierarchy of Projection is not met, then the structure will be ruled out. This means, for example, that the following structure is not generated by the system:

\[(113)\]

Later on, he completes his hierarchy of projection and gives it the following order:

Hierarchy of Projection:

Clausal: \( C > T > (\text{Neg}) > (\text{Perf}) > (\text{Prog}) > (\text{Pass}) > \nu > V \)

Nominal: \( D > (\text{Poss}) > n > N \) (p. 333).

The items enclosed in round brackets show that they are optional.

The terms adjunct, adjunction, adjoin, etc. have been the topic of a lot of discussion during the last three decades. We will try to keep ourselves away from the thorny issues involved with these topics. We will restrict ourselves to the use of adjunction/adjoin in the sense that the merge of an adjective/adjunct with a nominal is not a pure merge of the kind that we find, for example, between a verb and a nominal, where the valuation of features and in most cases theta role assignment is involved. Rather, it is a merge, where neither the valuation of features takes place nor there is an assignment of theta-roles. Moreover, as adjuncts cannot be the heads of their constructions, therefore, whenever an adjunction/adjoin occurs the adjunct does not project, rather, the new formed structure is only the extension of the old structure, as for instance: an adjunction/adjoin of an adjunct to an NP will be an extended NP.
References


