Nominals in Pashto Language

Yukki Baldoria, Keitaro Mitsuhashi, Rin Tsujita
International Christian University

1 Introduction

This squib introduces nominals in Pashto. Notably, it goes over grammatical genders, number formation, case, and the DP structure in regard to noun, adjectives, numerals, demonstrative, and a prepositional phrase. Data used here is from previous research regarding Pashto grammar as well as elicited data from a native Pashto speaker from Pakistan in Spring 2021.

2 Grammatical Genders

In Pashto, every noun is broken into the masculine or feminine grammatical gender form. While gender assignment is mostly arbitrary, it is seen in David and Brugman (2014) that from a phonological point of view, consonant-ending nouns and /ay/ ending nouns are masculine whereas /a ə əy e/ are generally female. A notable exception, however, is that animate nouns receive their grammatical gender according to their biological sex, especially nouns related to humans (David & Brugman, 2014). Thus, *χeza* 'woman' is grammatically female while *ma:ma:* 'uncle' is grammatically male even though it ends with /a/, which is what would phonologically denote a feminine noun. In other words, agreement of the biological sex of the word takes precedence over phonological agreement. On the other hand, inanimate nouns generally follow the phonological agreement rules, which explains why *kita:b 'book'* is assigned the masculine gender. Further examples of nouns, genders, and gloss are summarized below (1).

(1)		Word	Nom. Gender	Gloss
	a.	ʃagərd	masculine	apprentice
	b.	malgaɾi	masculine	friend
	c.	melma	female	guest

Additionally, depending on the number of the noun, different affixation patterns are seen inflecting according to the gender of the noun. This point will be further discussed in its corresponding section.

2.1 *Non-Human Animate Nouns Inflection According to Gender* Animate nouns that are non-human related can also be affixed with a gender suffix to specify their gender. Namely, the elicited data showed that common animate nouns that are grammatically male have the zero-morpheme affixed to indicate masculinity whereas the suffixes *-i* for vowel-ending nouns or *-o* for consonant-ending nouns are affixed to indicate femininity. This argument of the masculine form being affixed with the zero-morpheme is further extended to adjectives when they inflect to agree with the gender of the noun. Thus, *maɾʁə́* 'bird (male)' does not see affixation of a suffix but *maɾʁə́i* 'bird (female)' is affixed with *-i* to indicate the biological gender of the bird. However, more data is needed to see if this generalization can be extended to other non-human animate nouns or if the elicited data were exceptions. Examples of nouns following this pattern are shown in (2), where (2a-b) are examples of consonant-ending animate nouns and (2c-f) are examples of vowel-ending animate nouns.

(2)		Word	Nom. Gender	Gloss
	a.	piʃ	masculine	male cat
	b.	piʃo	feminine	female cat
	c.	spe	masculine	male dog
	d.	spei	feminine	female dog
	e.	ʒolə	masculine	male spider
	f.	ʒoləi	feminine	female spider

To add on, the research in David and Brugman (2014) state that nouns can also indicate biological gender without an inflection on the nominal but through the adjectival inflection, but the present study did not find examples of this as all nominals also inflected according to gender.

2.2 *Adjectival Inflection According to Gender*   Adjectives as well as verbs also inflect in accordance with the grammatical gender of the nominal, which is illustrated in (3).

(3)   a.   ʁat   piʃ
                big   cat (male)

        b.   ʁata   piʃo
                big   cat (female)

        c.   da   kita:b   χírən   de
                the   book-M   dirty-M   is
                'The book is dirty.'

        d.   da   piʃo   χírəna   da
                the   cat-F   dirty-F   is
                'The (female) cat is dirty.'

As can be seen, *ʁat* 'big' and *χírən* 'dirty' have the affixation of *-a* when the noun it describes is a feminine noun. However, this data only describes consonant-ending adjectives, and more information is needed to see the inflectional pattern of vowel-ending adjectives.

3 Number

This section will discuss the plural formation in Pashto. According to David and Brugman (2014), in Pashto, noun inflection occurs for its gender, case, and number, with the number being either plural or singular. The plural formation in Pashto is realized by the affixation of plural suffix, which shows several variations. Below are some examples of plural affixation.

(4)   <u>Singular</u>   <u>Plural</u>   <u>Gloss</u>

        a.   *spe*   *spi*   dog
        b.   *sp:ə́ga*   *sp:əgé*   louse
        c.   *χkár*   *χkará:n*   horn
        d.   *zɾá*   *zɾuná*   heart
        e.   *ʃá:*   *ʃagané*   back
        f.   *zanawár*   *zanawár*   animal
        g.   *agéɪ*   *agéɪ*   egg

From (4), we can see that Pashto has varieties of plural suffixes, which being: *-i, -e, -an, -una, -gan*. In addition to these variations, there are some nouns, such as *zanawár* 'animal' and *agéɪ* 'egg,' which show no alternation in plural form.

The alternation is not completely common among the data. However, it is possible to assume a partial generalization of the plural inflection by focusing on their vowel at the end of the singular form. The noun *spe* 'dog' and *sp:ə́ga* 'louse' will have their ending vowel alternated to a vowel with a higher tongue position in plural form *spi* and *sp:əgé*, causing vowel raising. This also allows us to assume that the non-alternating plural form *agéɪ* is formed since the ending vowel [ɪ] already is a high vowel. The phonological rule based on this assumption is as follows.

(5)   [-high, +low] → [-high, -low] / _#
              [-high, -low] → [+high, -low] / _#
              [+high, -low] → [+high, -low] / _#

The vowel raising rule, however, is not a complete general rule among Pashto due to some exceptions such as *té* 'breast' which does not alternate in plural form despite the fact that it ends with a mid-vowel. Further research is required to know the factor that affects these exceptions.

Below, we further discuss the features in which the Pashto plural formation is affected.

3.1 *Animate/Inanimate Distinction*   The plural inflection in Pashto is affected by some features, and one of them is the animate/inanimate feature. In Pashto, the plural suffix form is sometimes

determined by its animate/inanimate feature. Data in (6) is the case where *sár* 'head' has assigned different plural suffixes due to its animate/inanimate condition.

(6)		Singular	Plural	Condition	Gloss
	a.	*sár*	*sará:n*	*animate*	*head*
	b.	*sár*	*sarúna*	*inanimate*	*head*

3.2 *Gender and Plural Formation*   The plural formation of nouns in Pashto is also influenced by its gender, which being either masculine or feminine. Below is an example of the gender difference in plural formation in the direct present tense.

(7)		Singular	Plural	Gender	Gloss
	a.	*ma:ma:*	*ma:ma:**ga:n***	masculine	uncle
	b.	*spai*	*spai**ga:ne***	feminine	female dog
	c.	*ʃagərd*	*ʃagərd**an***	masculine	apprentice
	d.	*melma*	*melm**ane***	feminine	guest

Here, the gender creates different plural inflection. Although *ma:ma:* 'uncle' and *spai* 'female dog' are assigned the same plural suffix *-gan*, the feminine noun *spai* requires a vowel attached to the suffix. The same goes with *ʃagərd* 'apprentice' and *melma* 'guest,' where the suffix *-an* attached but the feminine noun *melma* has the suffix to have a vowel at the end.

3.3 *Case and Plural Formation*   Lastly, the case of the noun affects the plural formation. As the corresponding section discusses, Pashto has four morphosyntactic cases: directive case, oblique case, ablative case, the vocative case.[5] (8) shows the plural inflection corresponding to these four cases, taking the masculine noun *ʃagərd* 'apprentice' as an example.

(8)		Singular	Plural	Case	Gloss
	a.	*ʃagərd*	*ʃagərdan*	Direct	apprentice
	b.	*ʃagərd*	*ʃagardano*	Oblique	apprentice
	c.	*ʃagərd*	*ʃagurdano*	Ablative	apprentice
	d.	*ʃagərd*	*ʃagurdano*	Vocative	apprentice

The above examples show that while direct case noun forms the plural form *ʃagərdan*, oblique, ablative, and the vocative case requires the plural form to have the vowel /o/ at the end and forms *ʃagurdano*, showing the derivation of plural form based on its case.

4 Case

According to Twist and David (2013), General Pasto has four morphosyntactic cases: directive case, oblique case, ablative case, vocative case. One of the characteristics of Pashto is split ergativity. It means that it has features of ergativity languages in the non-past tenses and accusative languages in the past tenses.

4.1 *Direct Case*   The direct case is used for nominatives and accusatives in present tenses, and for absolutive function in the past tense. Absolutive function is used for subjects of intransitive verbs and for objects of transitive verbs.

(9)   ʃagərd   kita:b   luli
       apprentice-M   book-M   read-Pre-M
       'The apprentice is reading a book.'

4.2 *Oblique Case*   The oblique case appears as subjects of transitive verbs in the past tenses. According to Twist and David (2013), the oblique case is used for objects of adpositions in addition to

---

[5] In this paper, the word 'case' is used to mention morphosyntactic cases. Functions which morphosyntactic cases have are referred to with the word 'function'.

the ablative case. However, due to the overlap of this function, we consider that the ablative case is used for objects of adposition instead of the oblique case.

(10)   ∫agərd   kita:b   olusto
        apprentice-M   book-M   read-Past-M
        'The apprentice read a book.'

4.3 *Ablative Case*   Objects of adposition appear in the ablative case form.

(11)   malek   ∫agərd   na   kita:b   waχesto
        master-M   apprentice-M   from   book-M   receive-Past-M
        'The master received a book from the apprentice.'

4.4 *Vocative Case*   The vocative case is used only for vocative function.

(12)   ∫agərda
        apprentice-M
        'Apprentice!'

Inflections of three words, [∫agərd] 'apprentice', [malgare] 'friend', [ma:ma:] 'maternal uncle', are shown in the table below.

Table 1: Inflectional patterns of masculine nominals in Pashto according to case

Condition	Masculine, singular	Male, plural
Subject, Present, Transitive (Direct case nominative function)	∫agərd malgare ma:ma:	∫agərdan malgari Ma:ma:ga:n
Subject, Past, Transitive (Oblique)	∫agərd malgari ma:ma:	∫agardano malgaro Ma:ma:ga:no
Subject, Past, Intransitive (Direct case absolutive function)	∫agərd malgare ma:ma:	∫agardan malgari Ma:ma:ga:n
Direct object, Present, Transitive (Direct case accusative function)	∫agərd malgare ma:ma:	∫agurdan malgari ma:ma:ga:n
Direct object, Past Transitive (Direct case absolutive function)	∫agərd malgare ma:ma:	∫agurdan malgari ma:ma:ga:n
Object of adposition (ablative)	∫agərd malgari ma:ma:	∫agurdano malgaro ma:ma:ga:no
Vocative (vocative case)	∫agərd malgerija ma:ma:	∫agardano malgero ma:ma:ga:no

The singular forms of [∫agərd] 'apprentice', [ma:ma:] ' maternal uncle' do not change in any cases while [malgare] does. In this case, the final vowel [e] beccomes [i]. The plural forms of these words, on the other hand, are different depending on the cases. The vowel change from [i] to [o] is observed in [malgari] 'friends'. In the other two words, [o] is added at the word final in the oblique, ablative, and vocative case. The formation rules in the oblique, ablative, and vocative cases are shown in (13).

(13)   Morphological rule for cases in masculine nouns

        a.   Singular
                [e] → [i] / _#

        b.   Plural
                [i], or ø → [o] / _#

In singular forms, the rule in (13a) is applied only to [malgare]. In the plural forms, however, all the three words undergo the rule in (13b). It is stipulated that these differences are due to the words above belonging to different word classes, but our data is not enough to categorize which words are in which classes.

    Feminine nouns [χeza] 'woman' [melma] 'guest', and [spai] 'female dog', are listed below in the same way as the masculine-noun table.

Table 2: Inflectional patterns of masculine nominals in Pashto according to case

Condition	Feminine, singular	Feminine, plural
Subject, Present, Transitive (Direct case nominative function)	χeza melma spai	χeze melmane spaiga:ne
Subject, Past, Transitive (Oblique)	χeze melma spai	χezo melmano spai-ga:no
Subject, Past, Intransitive (Direct case absolutive function)	χeza melma spai	χeze melma-no spai-ga:ne
Direct object, Present, Transitive (Direct case accusative function)	χeze melma spai	χezo melmano spaiga:no
Direct object, Past, Transitive (Direct case absolutive function)	χeze melma spai	χezo melmano spaiga:no
Object of adposition (ablative)	χeze melma spa-	χezo melmano spaiga:no
Vocative (vocative case)	χeza melma spai	χezo: melmano spaiga:ne

    Even in the same direct case, feminine nouns other than the singular forms of [χeza] 'woman' and [spai] 'female dog', are different. This might be because feminine nouns have a different case system from masculine, or it is possible that our data is not correct. Further research is needed to reach a conclusion.

5 DP Structure

In Pashto, the order of modifiers is flexible but there are two restrictions: (1) modifiers except a postpositional phrase have to be before a head noun, (2) a demonstrative needs to be placed before adjectives except when an adjective is emphasized. Hence, if a demonstrative precedes an adjective and a head noun follows modifiers (although a prepositional phrase can be placed in front of a head noun), modifiers basically can be any order.

The basic order in a DP is a determine, numeral, adjective, nouns and postpositional phrase as shown (14).

(14)   Da   dwa   χat   kitabuna   merumano   baɾake
        these two   big-M   books-M   guests-M/F   about
        'these two big books about guests'

There is an agreement between adjectives and head nouns in Pashto. Therefore *χat* 'big' agrees with *kitabuna* 'books'. A noun in prepositional position is the same form regardless of gender. Since the order of modifiers is relatively flexible, the sentences in (15) are also acceptable. It is also possible that prepositional phrases precede modifiers and a head noun[6].
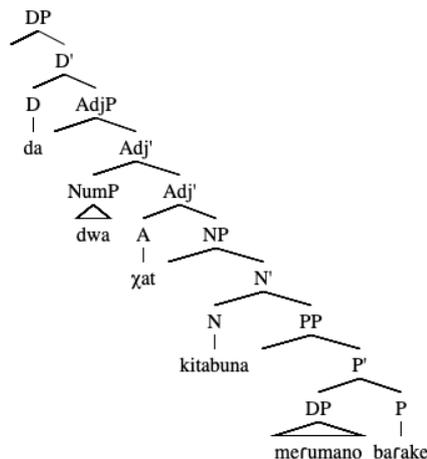
(15)   a.   da   χat   dwa   kitabuna   merumano   baɾake
                these   big-M   two   books-M   guests-M/F   about

        b.   dwa   da   χat   kitabuna   merumano baɾake
                Two   these   big-M   books-M   guests-M/F about

        c.   merumano   baɾake da   dwa   χat   kitabuna
                guests-M/F   about   these   two   big-M   books-M

        d.   merumano   baɾake da   χat   dwa   kitabuna
                guests -M/F   about   these   big-M   two   books-M

As mentioned above, an adjective cannot follow a demonstrative so the sentence in (16) is judged as ungrammatical by a native speaker.

(16)   *dwa   χat   da   kitabuna   merumano   baɾake
         Two   big   these   books-M   guest-M/F   about
        'these two big books about guests'

As a numeral can be placed anywhere in front of nouns, we assume that it is adjoined in a syntax tree.

(17)   Syntax tree of (14)

(17) describes that AdjPs and NPs are head-initial, but PPs are head-final. Hence, Pashto is a split-head language.
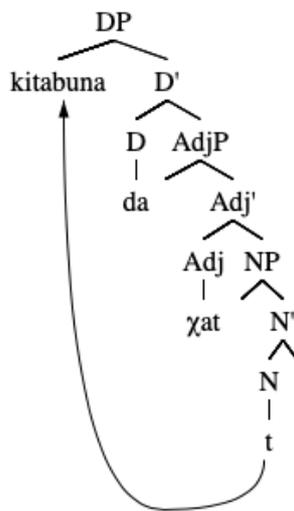
---

[6] One of the remaining issues is the position of prepositional phrases. It cannot be placed anywhere in front of a head noun. Further analysis is needed to reveal the restriction on prepositional phrases.

A head noun usually follows modifiers but there are exceptions if an adjective and a numeral are emphasized.

(18)   a.   kitabuna   da   χat
                  books-M   these   big-M
                  'These BIG books'

        b.   Kitabuna   χat   dwa
                  books -M   big-M   two
                  'TWO big books'

In these cases, the words which are placed in phrase-final positions are emphasized. There, it is assumed that a head noun moves to the specifier of a DP to emphasize an adjective or numerals in phrase-final positions. The movement is illustrated in (19).

(19)   Syntax tree of (18a)

6 Conclusion

The above discusses the nominal morphology in Pashto focusing on gender, number, case, and DP structure. First, in section 2, the grammatical gender of the noun, which is masculine and feminine in Pashto, is discussed by first reviewing the phonological distinction and the correlation between the noun's grammatical gender and its biological sex. In addition, 2.1 explains the presence of grammatical gender of non-human animate nouns, having 2.2 introducing the adjectival inflection which occurs when it describes a feminine noun. Section 3 followingly discusses the number inflection, focusing on three features that affect the plural inflection: animate/inanimate (3.1), grammatical gender (3.2), and morphosyntactic case (3.3). Furthermore, section 4 describes the inflectional derivation based on the morphosyntactic cases, which are direct, oblique, ablative, and vocative in Pashto. Lastly, section 5 describes the DP ordering in Pashto. The order of modifiers is relatively flexible but there are two restrictions. Also, the movement of a head noun to a DP specifier is observed when an adjective or a numeral is emphasized.

7 References

David, A. B., & Brugman, C. M. (2014). Descriptive grammar of Pashto and its dialects. De Gruyter Mouton.
Twist, A & David, A. (2013). *Descriptive grammar of pashto and its dialects*. ProQuest Ebook Central https://ebookcentral-proquest-com.othmer1.icu.ac.jp:2443