Nominals and Verbals in Punjabi

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1   Introduction

This paper reports on the nominal and verbal system in Punjabi. In concrete, this paper describes these points; grammatical genders, cases, plural markers, the DP structure in regard to adjectives, and verb tenses in Punjabi. The data that is used in this report derives from previous papers on Punjabi grammar and elicitations from a male native Punjabi speaker from Pakistan, done in Autumn of 2020.

2   Grammatical Genders

There are two different genders, masculine and feminine, in Punjabi. Every noun belongs to one of these. There is no strict rule to assign which gender to each word, and the gender is not always predictable from the meaning or the form of the word. According to Bhatia (1993), nouns in Punjabi are classified as marked and unmarked. Unmarked masculine nouns end with *-a* in the singular form and *-e* for the plural form. Unmarked feminine nouns end with *-i* for singulars and *-iã* for plurals. Nouns that do not end in the patterns listed above are classified as marked nouns. This is consistent with what we found during our elicitations, which is summarized in Table 1.

Table 1: Suffixation patterns according to the grammatical gender in direct cases

	Singular	Plural
Masculine	-a	-e
Feminine	-i	-iã

2.1   *Grammatical Genders on Animate Nouns*   As mentioned, every noun, including animate nouns, has an assigned grammatical gender. For example, *munda* 'boy' has the singular masculine form and *kuriã* 'girls' has the plural feminine form. Grammatical genders can also be assigned to animals, as seen in *kʊt:a* 'dog,' which has the singular masculine form, and *kori:* 'mare,' which has the singular feminine form. Here, however, note that the assigned gender for *kʊt:a* is always masculine, regardless of the biological gender of the specific dog that the word refers to, although *kori:* seems to have the feminine form apparently due to its meaning. What can be observed here is that the word meaning does not necessarily correspond to the biological gender of the noun. Below in (1a-b) are examples of animate nouns where the nominal gender matches the biological gender, (1b) shows animate nouns where the gender suffix does not match the biological gender, and (1c) illustrated an animate noun that can be used for both biological gender variations.

(1)   <u>Word</u>   <u>Nom. gender</u>   <u>Gloss</u>   <u>Gender suffix</u>

  a.   banda   Masculine   man   Masculine

  b.   karwali   Feminine   wife   Feminine

  c.   a:dmi   Masculine   man   Feminine

  d.   kʊt:a   Masculine   dog   Masculine

From the data above, it can be claimed that the nominal gender as well as the biological gender of a nominal matches in cases where the noun has an apparent biological gender, while nouns that do not carry the biological gender in the definition would have a masculine grammatical gender. Grammatical genders in relation to plural formation will be further discussed in the corresponding section below.

2.2 *Grammatical Genders on Adjectives*   Assignment of grammatical genders also apply to adjectives in addition to nouns. Let us look at the following example (2).

(2)   a.   ɪk   t͡ʃaŋga   munda   kitaba   paɾda   e
            a   good-M-Sg   boy   books   read-Pre-M-Sg Aux-Sg
            'A good boy reads books.'

       b.   ɪk   t͡ʃaŋgi   kuri: ɪk   kitaba   paɾdi   e
            a   good-F-Sg girl   a   books   read-Pre-F-Sg Aux-Sg
            'A good girl reads a book.'

In the example sentences (2) above, we see that the form of the adjective inflects depending on the grammatical gender of the noun that it modifies.

2.3.1 *Grammatical Genders on Verbs*   In the previous sections, we presented masculine and feminine nouns and adjectives in Punjabi. Here in this section, the focus will be on the grammatical genders of verbs in Punjabi. The research in Bhatia (1993) and our data (3) show that when there are more than two nouns with different genders in a sentence, the verb of the whole sentence takes the masculine form.

(3)   a.   ɪk   munda   te   ɪk   kuri   kitaba   paɾde: ne
            a   boy-M   and   a   girl-F   books   read-Pre-M-Pl Aux-Pl
            'A boy and a girl read books.'

       b.   ɪk   kuri   te   ɪk   munda   kitaba   paɾde: ne
            a   girl-F   and   a   boy-M   books   read-Pre-M-Pl Aux-Pl
            'A girl and a boy read books.'

       c.   munde   te   kuriã   kitaba   paɾde: ne
            boys-M-Pl   and   girls-F-Pl   books   read-Pre-M-Pl Aux-Pl
            'Boys and girls read books.'

       d.   kuriã   te   munde   kitaba   paɾde: ne
            girls-F-Pl and   boys-M-Pl   books   read-Pre-M-Pl Aux-Pl
            'Girls and boys read books.'

As shown in the data (3a) to (3d) above, all the verbs take the masculine form regardless of the existence of two different nominals with different grammatical genders in the sentence. In addition, it can be said that the gender of the noun which immediately precedes the verb does not affect the grammatical gender for the verb. Moreover, the verbs in all of the four data above have the same form with the same gender irrespective of whether the nouns preceding the verb is singular or plural. From this analysis, we can conclude that the masculine gender is the underlying form in Punjabi.

However, grammatical genders are not only assigned in the present tense as the data in (3) may indicate, but also in future tense constructions, as supported by data (4) below.

(4)   a.   o   ɪk   munde   nu   ɪk   kitab   de:ga
            he   a   boy   to   a   book   give-Fut-M-Sg
            'He will give a book to a boy.'

       b.   o   ɪk   munde   nu   ɪk   kitab   de:gi
            she a   boy   to   a   book   give-Fut-F-Sg
            'She will give a book to a boy.'

In the sentences (4a) and (4b) above, the only difference is in whether it is *ga* or *gi* that appears at the end of each verb. We notice that the form it takes depends on the gender of the subject that corresponds to them. Therefore, in (4a), *-ga*, which is masculine, is used since the subject of the sentence 'he' is also masculine, while in (4b), the feminine form *-gi* is used since the subject of the sentence is feminine. From this, we can also hypothesise that verbs in the past tense will also inflect for gender, but more research would be necessary to confirm this.

2.4 *The Underlying Form of The Grammatical Gender*   During our research, we found that the underlying form for unspecified nouns are masculine. For example, *kʊt:a*, which is masculine, is used for 'dog,' when the gender of the dog is unspecified or neutral. This means that when the biological gender of the animate noun is unclear, the masculine form will be used. However, when the gender of the animate noun is made clear, then the word inflects and the lexical meaning matches the grammatical gender of the word. For example, *kʊt:i* is used to refer to a female dog specifically. As such, we see that the masculine form is the underlying form of the nominals.

2.5 *Biological Gender Over Gender Morpheme*   On the other hand, when there is a contradiction between the biological gender and the gender morpheme, we notice that the lexical semantics takes precedence over morphophonology. This is seen as the word *a:dmi* is grammatically masculine even though it ends with the feminine gender morpheme.

3   Cases

Our study found three main noun cases in Punjabi, which are the direct case, oblique case, and vocative case. The proposal in Bhatia (1993) states that "the syntactic and semantic functions of noun phrases can be expressed by case suffixes, postpositions, and derivational processes" (p. 164) This supports what we found in this study as well with regards to cases. In Punjabi, case markers are not affixed to nouns but exist as postpositions. It is important to note that the affixation pattern also can change depending on noun declension, that is, noun gender and markedness.

3.1 *Direct Case*   There was no case marker for direct cases found, and this is consistent with what Bhatia (1993) states as well. Davison (2001) lists this as the null postposition for nominative case. The root also undergoes no change in affixation in the direct case.

3.2 *Oblique Case*   The oblique cases found in this study were the accusative case, the dative case, the locative case, the ablative case, the ergative case, and the genitive case. This is also what was found in Bhatia (1993). The different oblique cases in Punjabi are marked with their respective postpositions, with only unmarked masculine nouns undergoing a change in suffix from *-a* to *-e*, as shown below with the example of *banda*, 'man'.

(5)   banda   kar   gia
        man-dir.   home   went
        'The man went home.'

(6)   kaɾwali ne   bande   nu vekia
        wife   erg.   man-obl.acc.   saw
        'The wife saw the man.'

3.2.1 *Accusative Case*   Accusative cases and dative cases in Punjabi are both marked with the postposition *nu*. Both Shackle (2003) and Bhatia (1993) list this. Bhatia (1993) states that the accusative *nu* is only required for animate objects, which was also seen in our study:

(7)   kaɾwali   ne   bande   nu   vekia
        wife   erg.   man   acc.   saw
        'The wife saw the man.'

(8)   kaɾwali ne   bande   nu   ɪk   kitab   dit:i
        wife   erg.   man   loc.   a   book (acc.)   gave
        'The wife gave a book to the man.'

In (7), the accusative object is *bande* while in (8) the accusative object is *kitab*. However, only *bande* is marked with the accusative *nu*, because *kitab* is inanimate. This is consistent with what is stated in Bhatia (1993). However, we also found patterns in this study suggesting that *nu* may not be required for animate objects as well, as seen in the following examples (9-12).

(9)   usta:d   ɪk   t͡ʃaŋeː   munde   nu   vekda   e
        Teacher   a   good   boy   acc.   sees   Aux-Sg
        'The teacher sees a good boy.'

(10)   usta:d   ɪk   t͡ʃaŋga   munda   vekda   e
        teacher   a   good   boy-acc. sees   Aux-Sg
        'The teacher sees a good boy.'

(11)   o   aksər   ɪk   kʊt:a   vekia
        he   often   a   dog-acc.   saw
        'He often saw a dog.'

(12)   o   aksər   ɪk   kʊt:e   nu   vekia
        he   often   a   dog   acc.   saw
        'He often saw a dog.'

As seen, there is no difference between in the placement of *nu* with regards to animate and inanimate objects. Hence, we found that placement of *nu* is not related to animation of the object. What we found was that the accusative *nu* is a possible focus marker. Our consultant also affirmed that in (9) and (12) where *nu* is present, more emphasis is placed on the objects *mundee* and *kʊt:e* when compared to (10) and (11). This was confirmed in the sentences below, where the objects were manipulated for focus:

(13)   o   ne   aksər   ɪk   kʊt:e   nu   vekia,   ɪk   bil:i   nu   nei
        he   erg. often   a   dog   acc.   saw   a   cat   acc.   not
        'He often saw A DOG, not a cat.'

(14)   *o   ne   aksər   ɪk   kʊt:a   vekia,   ɪk   bil:i   nei
        he   erg. often   a   dog   saw   a   cat   not
        intended: 'He often saw A DOG, not a cat'.

The consultant was asked to place focus on *kʊt:e nu* and *kʊt:a* and these sentences, but as seen in (14), the focused object without *nu* becomes unacceptable. Hence, it is proposed that the accusative *nu* in Punjabi is distributed by focus, which is different from what Bhatia (1993) states. One thing to note in all the above examples is that the noun stems have to inflect when taking on the *nu* postposition, as stated in the aforementioned examples (5) and (6). However, when the accusative object does not take on a *nu* particle, then it does not inflect at all, regardless of case. This inflection pattern is observed in (9) and (10).

3.2.2 *Dative Case*   As mentioned above, the *nu* postposition can be used to mark both dative and accusative cases. What we found in this study is that when both accusative and dative objects occur in a sentence, the dative object takes the case marker *nu* while the accusative *nu* is omitted, as seen in (8) listed above. The reverse of this pattern does not hold, in that if the dative *nu* is omitted while the accusative *nu* remains, the sentence becomes unacceptable. This is seen in both animate and inanimate objects, as shown below, where *kitab* is inanimate and *kʊt:a* is animate.

(15)   o   ne   ɪk   munde   nu   ɪk   kitab   dit:i
        he   erg. a   man   dat.   a   book-acc.   gave
        'He gave a book to a man.'

(16)   *o   ne   ɪk   munda   ɪk   kitab   nu   dit:i
        he   erg. a   man   a   book   acc.   gave
        intended: 'He gave a book to a man.'

(17)   o   ne   ɪk   munde   nu   ɪk   kʊt:a   dit:a
        he   erg.   a   man   dat. a   dog-acc.   gave
        'He gave a dog to a man.'

(18)   *o   ne   ɪk   munda   ɪk   kʊt:e   nu   dit:i
        he   erg.   a   man   a   dog   acc. gave
        intended: 'He gave a dog to a man.'

The discrepancy here is motivated by the difference in cases, leading us to postulate that the dative case marker *nu* takes precedence over the accusative *nu*. It is also not the case that the double *nu* is not allowed in Punjabi. An accusative object can take multiple dative cases, and each of those cases can be marked by a dative *nu* as well, as seen below:

(19)   o   ne   ɪk   munde nu te   ɪk   kʊt:e   nu   kana   dit:a
        he   erg.   a   man   dat. and a   dog   dat. meal   gave
        'He gave a meal to a man and a dog.'

Hence, we see that the formation of the double *nu* is allowed in Punjabi, but only for multiple dative cases. In instances where a sentence contains both accusative and dative cases, the dative case takes precedence, and the accusative *nu* is omitted.

3.2.3   *Locative Case*   The locative case marker found in this study is *vitʃ* 'in', which is indicated in both Shackle (2003) and Bhatia (1993). This is shown below.

(20)   bande   vitʃ   meda   e
        man   loc.   stomach   is
        'The stomach is in the man'.

3.2.4   *Ablative Case*   The ablative case marker found in this study is *tũ*, which is also listed in Bhatia (1993). This is shown below in (21)

(21)   kaɾwali ne   bande   tũ   sabd͡ʒiã   lẽĩã
        wife   erg.   man   abl.   vegetables   received
        'The wife received vegetables from the man.'

3.2.5   *Ergative Case*   Ergativity is described in Dixon (1994) as the treatment of an intransitive subject and the object of a transitive object as the same, while treating a transitive subject as different. This is different from accusative languages such as English, where transitive and intransitive subjects are treated as the same, with objects being treated differently. In Punjabi, we see evidence of ergativity, as there is a postposition *ne* which distinguishes between transitive subjects from intransitive subjects. Intransitive subjects are treated as nominatives and take no case markers, but transitive subjects take the postposition *ne*, as seen below in (22-23).

(22)   bande   ne   kam   kita
        man   erg.   work   did
        'The man did the work.'

(23)   banda   kar   gya
        man-nom.   home   went
        'The man went home.'

As seen, *banda* inflects to *bande* and takes on the ergative marker *ne* in (22). This is supported by Bhatia (1993), in which *ne* is listed as the ergative case marker as well.

3.2.5.1   *Split Ergativity*   Though there is evidence that transitive and intransitive subjects are treated differently in Punjabi, there is also evidence that Punjabi is not a fully ergative language. The first is that intransitive subjects in Punjabi are distinguished from objects. In ergative languages, intransitive subjects are treated the same with objects, but this is not always the case in Punjabi. As mentioned above, intransitive subjects

are not marked with a case marker, but accusative objects have the option of being marked with the *nu* postposition. When the accusative object does not take on the *nu* case marker, then it is identical to the intransitive subject. However, when the object takes the *nu* case marker, it inflects to be different from the nominative case, as seen in (23).

(23)   kaɾwali   ne   bande   nu   vekia
        wife   erg.   man   acc.   saw
        'The wife saw the man.'

Secondly, we found that the ergative postposition *ne* only appears for transitive subjects when the sentence is in past tense (24). When the sentence is in the present tense, the ergative *ne* is omitted for transitive subjects (25).

(24)   usta:d   ne ɪk t͡ʃaŋge: munde   nu   vekia
        teacher   erg. a good   boy   acc.   saw
        'The teacher saw a good boy.'

(25)   usta:d   ɪk t͡ʃaŋge: munde   nu   vekda   e
        teacher   a good   boy   acc.   sees   Aux-Sg
        'The teacher sees a good boy.'

This pattern was also listed in Bhatia (1993), in that the ergative case marker *ne* occurs only in perfective sentences. Davison (2001) describes the same phenomenon of the ergative case marker *ne* as occurring in Hindi and Urdu, which are both split-ergative languages. Hence, it is submitted that Punjabi, like Hindi and Urdu, is also a split-ergative language.

3.2.6   *Genitive*   The only genitive case marker found in this study was *di*, as seen below in (26).

(26)   bande   di karwali ne   kʰana   pakaia
        man   's wife   erg.   cooked   food
        'The man's wife cooked food'

The genitive postposition listed in both Shackle (2003) and Bhatia (1993) is *da*. However, Bhatia (1993) states that though all other postpositions are invariant, the genitive postposition *da* can inflect for gender, number, and case. Hence, it is possible that the *di* found in this study is an inflection of the *da* postposition found in prior research.

3.3   *Vocative Case*   For masculine nouns, the paper in Bhatia (1993) states that the inflection for vocative cases are *-ia*, and that the nouns are preceded with *oe/ve*. Feminine nouns are suffixed with *-e* and preceded by *nii*. These patterns are the same for both marked and unmarked nouns. In our study, we did not find any of the inflected forms for vocative nouns, but we found an *o* that preceded the masculine noun in the vocative case, which is illustrated in (27) below.

(27)   O   banda!   dor   gia   e
        man   (voc.)   run   went   is
        'The man! He ran away.'

3.3   *Possesive Marker kol*   Bhatia (1993) found that postposition compounding occurs in Punjabi, with the second postposition taken as the argument. This sentence is also listed in Bhatia (1993). According to him, *kol* 'near' is a pseudo-head of a noun phrase which is modified by the postpositional phrase *o de.* One example of this was found in our study, as well, as seen in (28) below.

(28)   o   de kol   kitaba   ne
        he   's near   books   is
        'He has books.'

In our study, we found that *kol* is used as a marker when the accusative object does not form an emotional bond with the subject. However, the *kol* is dropped when the accusative object can form an emotional 'closeness' with the subject. The patterns are seen below:

(29) o   de   kol   ɪk   pensel   e
      he   's   near   a   pencil   is
      'He has a pencil.'

(30) o   de   ɪk   dada   ne
      he   's   a   grandfather is
      'He has a grandfather.'

For objects such as 'pencil' in (29), the alienable possessive marker *kol* occurs, but for objects such as 'grandfather' in (30), *kol* is dropped. The plural *ne* in (30) is required for politeness and does not affect the distribution of *kol*. Thus, by inserting or omitting the *kol* for possessive verbs, it is possible to infer the closeness of the relationship between the subject and the object, as seen below:

(31) o   de   kol   ɪk   kʊt:a   e
      he   's   near   a   dog   is
      'He has a dog.' (just a dog, not a close friend)

(32) o   de   ɪk   kʊt:a   e
      he   's   a   dog   is
      'He has a dog.' (a dog who is a close friend)

Even though (31) and (32) share the same objects, the absence of *kol* in (32) marks a more intimate relationship between the subject and the dog, whereas the presence of *kol* in (31) signals that it is just a mere statement of fact that the subject possesses a dog.

4   Plural Formation

Next, this section will discuss plural formation in Punjabi. According to Bhatia (1993), inflection in nouns occurs for number, gender, and case, with there being only the singular and plural number in Punjabi. Generally speaking, the plural suffix form primarily depends on the gender and the case of the nominal, that is, as words are inherently masculine or feminine, they have different inflectional patterns for case and number. Yet, in addition to affixation on the nominal to reflect plurality, there is also agreement between the copula and the number, auxiliary verb and the number, the nominal and the adjective, as well as the nominal and verb.

4.1 *Plural Formation through Affixation in Nominals*   Bhatia (1993) writes that plural affixation has a total of 12 different patterns, of which six are used for masculine nouns and six for feminine. Within the six forms in the masculine nouns, they are further broken down into three each--one each for the direct, oblique, and vocative case for the unmaked *-a* ending noun, and one each for the same cases but in the marked non *-a*-ending masculine noun. In regard to the feminine nouns, the same pattern is observed, with the exception of the unmarked gender marker being *-i* and the marked gender marker being non *-i* ending nouns. According to him, the root of the word is maintained while the suffix is dropped and replaced by the appropriate affix depending on the case and the number of the noun. Below is a table that summarises these points with the masculine nouns *munda* 'boy' and *a:dmi* 'man' and the feminine nominals *kuri* 'girl' and *ra:t* 'night' as examples.

Table 2: Singular and plural inflection patterns for nominals

Punjabi	Gender	Markedness	Case	Singular	Plural
munda	Masculine	Unmarked	Direct	munda	munde
			Oblique	munde	mundiã

			Vocative	mundia	mundio
a:dmi		Marked	Direct	a:dmi	a:dmi
			Oblique	a:dmi	a:dmiã
			Vocative	a:dmia	a:dmio
kuri	Feminine	Unmarked	Direct	kuri	kuriã
			Oblique	kuri	kuriã
			Vocative	kurie	kurio
ra:t		Marked	Direct	ra:t	ra:tã
			Oblique	ra:t	ra:tã
			Vocative	ra:te	ra:to

Data collected in the present study supports this data. Below in the data set (33) are examples of data elicited that exhibits these inflectional patterns.

(33) a. kuriã   kitaba   pardiã   ne
          girls   books   read-Pre-Pl-F   Pre-3rd-Pl
          'Girls read books.'

      b. alu: te   tʃaliã   ətʰe   vıkde   ne
          potatoes   and   corn (pl)   are   sell-Pre-Pl-M   Pre-3rd-Pl
          'Potatoes and corn are sold here.'

4.2 *Subject Number and Copula Agreement in Plural Formation*   Additionally, there seems to be a subject number and copula agreement in Punjabi regardless of the grammatical gender of the word. Let us look at the masculine nominal *munda* (34a-b) and the feminine nominal *kuri* (34c-d) below for further clarification.

(34) a. ık munda   ık kitab   parda   e
          a   boy-Sg   a   book-Sg   read-Pre-Sg-M   Pre-3rd-Sg
          'A boy reads a book.'

      b. munde   kitaba   parde   ne
          boys-Pl   books-Pl   read-Pre-Pl-M   Pre-3rd-Pl
          'Boys read books.'

      c. ık kuri   ık kitab   pardi   e
          a   girl-Sg   a   book-Sg   read-Pre-Sg-F   Pre-3rd-Sg
          'A girl reads a book.'

      d. kuriã   kitaba   pardiã   ne
          girls-Pl   books-Pl   read-Pre-Pl-F   Pre-3rd-Pl
          'Girls read books.'

From what is observed, the copula *e* is used for singular nouns indifferent of the noun's grammatical gender. On the other hand, the copula *ne* is seen when the noun is plural. In order to see whether this agreement lies on the subject or on the object of the sentence, we can compare the above data to the following examples on the next page.

(35)   a.   ɪk   munda   kitaba   parda   e
            one   boy-Sg   books-Pl   read-Pre-Sg-M   Pre-3rd-Sg
            'A boy reads books.'

       b.   ɪk   kuri   kitaba   pardi   e
            one   girl-Sg   books-Pl   read-Pre-Sg-F   Pre-3rd-Sg
            'A girl reads books.'

       c.   munde   ɪk   kitab   parde   ne
            boys-Pl   a   book   read-Pre-Pl-M   Pre-3rd-Pl
            'Boys read a book.'

       d.   kuriã: ɪk   kitab   pardiã   ne
            girls-Pl   a   book-Sg   read-Pre-Pl-F   Pre-3rd-Pl
            'Girls read a book.'

Notice how in this data set, the number for the subject and the object are different, unlike that of the examples above. Nonetheless, we see that the copula is in agreement with the number of the subject and not with the number of the object. As such, not only is there inflection on the nominal to mark plurality, but also on the copula. A possible explanation of why this happens may lie on the marked nominals. For the direct case of marked masculine nouns, there is no change in noun form between the two, as presented by Bhatia (1993). As such, sentences like that in (36) below, where the subject is a marked masculine, the nominal in singular and plural form respectively are the same.

(36)   a.   ɪk   tʃaŋga   kar   meŋga   e
            one   good-Sg   house-Sg   expensive-Sg   Pre-3rd-Sg
            'A good house is expensive.'

       b.   tʃaŋge   kar   meŋge   ne
            good-Pl   houses-Pl   expensive-Pl   Pre-3rd-Pl
            'Good houses are expensive.'

Additionally, in sentences where the subject is a composite of two singular nouns, we still see the usage of the plural copula, hinting that agreement lies on the collective whole of the subject and not of the individual words that make up the subject. Below (37) is an example for further clarification.

(37)   a.   alu: te   tʃali ətʰe   vɪkde   ne
            potato-Sg   and   corn-Sg are   sell-Pre-Pl-M   Pre-3rd-Pl
            'Potato and corn are sold here.'

       b.   alu: te   tʃaliã: ətʰe   vɪkde   ne
            potato-Pl   and   corn-Pl   are   sell-Pre-Pl-M Pre-3rd-Pl
            'Potatoes and corn are sold here.'

4.3 *Subject Number and Auxiliary Verb Agreement in Plural Formation*   In the present study, we also noticed the presence of auxiliary verbs, of which their existence is briefly discussed in Bhatia (1978). Still, while it does not talk about inflection based on the number, elicitations from our consultant exemplified this phenomenon. The example sentences below show the auxiliary verb agreeing with the singular and plural form of the nominal.

(38)   a.   o   de   kol   ɪk   pensel   e
            he Gen.   near   a   pencil-Sg   Aux-Sg
            'He has a pencil.'

       b.   o   de   kol   ten   penselã   ne
            He Gen.   near   three   pencils-Pl   Aux-Pl
            'He has three pencils.'

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From what we can see, the auxiliary verb also inflects according to the number of the nominal. Yet, contrary to the copula, it seems that the infection here follows that of the object rather than the subject. A possible analysis of the reason why there is a subject-object distinction between the copula and the auxiliary verb is that it is to distinguish between the two. As they are both phonetically identical, it is hard to distinguish whether it is an auxiliary or a copula. As such, by having them inflect accordingly, one can easily tell them apart.

4.4   Subject Number and Adjective Agreement in Plural Formation   From all of these examples, we notice that plural inflection not only takes place on the nominal but also on adjectives and verbs. This next section will present data on adjectives. Adjectives in Punjabi inflect based on the grammatical gender of the noun. In other words, if the nominal is a masculine word, then the adjective will inflect with the masculine suffixation pattern, and vice versa for the feminine nouns, as mentioned in the gender section of this paper. As we can see from example (36), *tʃaŋga* for 'good' in the single form becomes *tʃaŋge* in the plural form. However, Shackle (2003) states that in addition to what is mentioned, different inflectional patterns can also occur in adjectives depending on the case in a similar fashion as observed with nominals. This was not tested in the present study and further research is necessary to verify these claims.

A peculiar point, however, is that certain adjectives do not show an inflection, as seen in *xuʃ* below in (39).

(39)   a.   ɪk   xuʃ   munda   duperi   da kʰana   kʰanda   e
            one happy-Sg   boy-Sg   afternoon-Erg. of meal   eat-Pre-Sg-M   Pre-3rd-Sg
            'A happy boy eats lunch.'

       b.   xuʃ   munde   dʒus   pinde   ne
            happy-Pl   boys-Pl   juice   drink-Pre-Pl-M   Pre-3rd-Pl
            'Happy boys drink juice.'

At a glance, it may seem that there are two possible reasons to explain this. One, that only vowel-ending words can inflect or two, that *xuʃ* is an irregular adjective. We cannot postulate that words that end in the unmarked gender markers of *-a* and *-i* are only ones that can inflect as this general rule only applies to nominals. Nevertheless, Bhatia (1993) postulates that adjectives only take two forms, *-aa*-ending and non-*aa*-ending, where only the former inflects accordingly. While the present data supports this, further research should be conducted with adjectives that end with different vowels.

4.5   *Subject Number and Verb Agreement in Plural Formation*   Lastly, we also see that there is also agreement between the verb and the number of the subject nominal, at least in the present and future tense. If we go back to example (35), we see that the verb *par-na* 'to read' inflects at least according to the gender and number of the subject, with the possible addition of case, like the other open-class categories. However, the present study only elicited data with regards to number in the present and future tense. A comparison of the general pattern of verbal inflection between singular and plural form in the present tense is summarised in Table 3 below with the verb *par-na* 'to read', while a table summarising this pattern in the future tense is in Table 4 with the verb *piwa* 'to have.'

Table 3: Verb inflection patterns in the present tense according to the number

Punjabi	Gender	Singular	Plural
parna	Masculine	parda	parde
	Feminine	pardi	pardiã

Table 4: Verb inflection patterns in the future tense according to the number

Punjabi	Gender	Singular	Plural
piwa	Masculine	piwa-ga	piwa-ge
	Feminine	piwa-gi	piwa-giã

As we can see, the verb stem is maintained while the suffix is dropped and replaced with the appropriate suffix depending on the gender and number, and tense.

5   DP Structure

This section reports the DP structure in Punjabi, focusing especially on the ordering of the adjectives. Let us look at data set (40) for further clarification.

(40)   a.   ɪk   ʋəɖːa   moʈa   ləma   ɖanda
            a   big   thick   long   stick

       b.   ɪk   ləma   ʋəɖːa   moʈa   ɖanda
            a   long   big   thick   stick

       c.   ɪk   ləma   moʈa   ʋəɖːa   ɖanda
            a   long   thick   big   stick

       d.   ɪk   moʈa   ləma   ʋəɖːa   ɖanda
            a   thick   long   big   stick

       e.   ɪk   moʈa   ʋəɖːa   ləma   ɖanda
            a   thick   big   long   stick

As we can see, there is no restriction in the order of adjectives in Punjabi. As such, we can make the hypothesis that there are no constraints on adjectival order in Punjabi and thus it is not a language with strict adjectival order. However, in focused contexts, we see that there is some restriction in the order, as seen below (41).

(41)   a.   ɪk   bhora   ʋəɖːa   goːl   ɖanda
            a   brown   big   round   stick
            context: a big round brown stick vs. a big round yellow stick

       b.   ɪk   goːl   bhora   ʋəɖːa   ɖanda
            a   round   brown   big   stick
            context: a big round brown stick vs. a big square brown stick

By comparing the examples in (41), we notice that the contrastive element comes first, followed by the rest of the adjectives. From this, we notice that Punjabi is not restrictive in adjectival order in non-contrastive sentences, but in sentences with one contrastive element, said element has to come first, as seen with *bhora* in (41a) and *goːl* in (41b). In sentences where there are two contrastive elements, as seen in (42) below, we notice that the adjective for size must come first, followed by the other adjectives.

(42)   a.   ɪk   ʋəɖːa   goːl   bhoora   ɖanda
            a   big   round   brown   stick
            context: a big round brown stick vs. a small round yellow stick

       b.   ɪk   ʋəɖːa   goːl   bhoora   ɖanda
            a   big   round   brown   stick
            context: a big round brown stick vs. a small square brown stick

In other words, while Punjabi is not a fully strict language in terms of adjectival order, in contexts where there is one focused element, the adjective must occur before the other adjectives, where the order of the succeeding adjectives does not matter. In sentences where there are two focused elements, the adjective for size must occur first.

6   Verb Tense and Aspect

In this section, we are going to talk about the verb tense and aspect in the direct case. Below in (43) illustrates the past, present, and future tense.

(43)   a.   o   ne   ɪk kʊt:a   vekʰia
             he   erg.   a   dog   saw
             'He saw a dog.'

        b.   o   kʊt:e   vekʰda   e
             he   dogs   see   Aux-Pre.-3rd-M-Sg
             'He sees dogs.'

        c.   o   ɪk kʊt:a   vekʰe-ga
             he   a   dog   see-Fut-3rd-M-Sg
             'He will see a dog.'

First, we notice that Punjabi sentences are in the subject-object-verb order, as is seen in data (43) where *vekʰ-da* 'to see' occurs at the end of the sentence. Second, in regard to verb tense in the direct case, we notice that there are three inflectional patterns of the verb; the past tense *-ia,* the present tense *-da*, and the future tense *-e-ga*. From this data, we can postulate that the verb itself inflects accordingly to express tense, which is supported by the research in Shackle (2003). Also, we notice that auxiliary verbs are present only in the present tense as seen in (43b), while the past and future tense does not need an auxiliary verb. This is supported by the study in Bhatia (1993), where only the past participle as well as the future tense is formed by adding the appropriate suffixes and inflecting it for number and gender. Lastly, let us discuss the following data set, focusing on the past copular/auxiliary verb.

(44)   a.   o   ɪk tʃange   bande   nu   mile   ne
             They   a   good   man   acc.   met   Past-3rd-Pl
             'They met a good man.'

        b.   o   ɪk tʃange   bande   nu   mile   si
             They   a   good   man   acc.   met   Past-3rd-Pl
             'They met a good man.'

While both sentences in here mean 'they met a good man,' we notice that there is a difference only in the past copular/auxiliary verb. What is written in Bhatia (1993), however, is that situations that have been completed not too long ago are marked by a *h(e),* as seen in the following example (45) from Bhatia (1993).

(45)   a.   o   hune   aaiaa   (h)e
             he   now-right   come   is-Aux
             'He has arrived a short time ago from America.'

On the other hand, the research in Bhatia (1993) also states that the past copular/auxiliary form *si* is used to mark the remote past in the pluperfect tense when it is a singular noun, as seen in the following example (46) from Bhatia (1993).

(46)   a.   kai   sal   ho   ki   mẽ   ouhe   gia   si
             several   years   happen-Pst.   that   I   there   go-Pst.   was
             'Several years ago, I had gone there.'

As such, it is possible that while they both refer to a past action, the degree of remoteness in both sentences are different, with (44a) being in the proximate past while (44b) indicates the remote past. As for why (44a) uses *ne* and not *e* as is seen in (45) could be again down to a problem of plurality. Notice how the subject of (44a) is a plural, while that of (45) is a singular noun. As such, it is very possible that the copular/auxiliary verb is also being inflected for number, as mentioned previously in the above sections. Yet, more data is necessary to verify the validity of these claims.

7   Conclusion

In the data set presented in this report, we find that nominals can have either a masculine or feminine grammatical gender assigned to the word. Additionally, we also found that it is the grammatical gender of the word that decides on the grammatical form of the adjective and the verb. It was also found that whenever there is a contradiction between the grammatical gender suffix and the biological gender of an animate nominal, such as *a:dmi* 'man,' the word is still masculine, leading us to argue that the biological gender of a word takes precedence over the morphological suffix gender marker. In animate nominals where the biological gender is unclear in its definition, such as *kʊt:a* 'dog,' we notice that the word takes the masculine form, hinting that the masculine form is the underlying form of the nominal in such situations.

About case, the present study also found three major case categories: direct, oblique, and vocative. While no case markers as well as nominal inflection were found in the direct case, they were present for the oblique and vocative case, which is in accordance with what is stated in the prior research. In regard to the oblique case, we found that they are marked through a postposition. In our study, we found the following oblique cases: the accusative, the dative, the locative, the ablative, the ergative, and the genitive case. In the accusative case, we found that the postposition *nu* may not be required for animate objects, which contradicts what is stated in Bhatia (1993). The difference between sentences where *nu* is present and absent, however, lies in focus, in that nominals that take on *nu* become focused. More prosodic data would be useful in studying this. Additionally, it was also found that the nominal only undergoes inflection if the case marker follows it. That is, if there is no *nu*, even if it is an accusative sentence, the nominal would not take the oblique form, leading us to believe that it is the postposition that regulates the inflection of the nominal. In the dative case, we also found that *nu* is used as the postposition. However, in sentences where there are both an accusative and a dative, we see that the dative takes precedence over the accusative case and the *nu* for the accusative is dropped. It is also not the case that the doubling of *nu* is prohibited in Punjabi as sentences with multiple dative cases see the inclusion of multiple *nu* dative postpositions. Next, the locative case is marked by the *vitʃ* postposition, while the ablative case is marked by the *tũ* postposition. We also found the ergative case present in our study. Yet, the postposition *ne* was only present in the past tense, illustrating that Punjabi is a language with split-ergativity. In terms of the genitive case, we found the postposition *di*. While prior research talks about the marker being *da*, their papers also argue that it is a postposition that can change depending on the gender, number, and case. The argument in Bhatia (1993) states that there is an inflection of the nominal as well as a preposition that marks the vocative. While these points were not found in our study, we did find a different preposition *o* that could be what is presented in Bhatia (1993). However, more research is necessary to see the reason for this difference between the current and previous studies. Finally, we also found the compound postposition *kol* in the present study. In accordance with what is stated in Bhatia (1993), it is used to indicate proximity to an object. Yet, the present study found that *kol* is used only to indicate physical proximity, and that it is dropped when indicating emotional closeness.

Regarding plural formation, it was found that nominals inflect to illustrate plurality based on the grammatical gender and the case. Additionally, we also see that there is agreement between the subject and the copula as well as the adjective and verb in regard to gender, case, and number. Interestingly, we found that the copula *e* is used only when the subject is singular, while the plural version *ne* is used when the subject is plural in numbers regardless of whether they are made up of independent singular units or not. On the other hand, the auxiliary *e* is only used when the object is a singular but *ne* is used when the object is a plural. A possible explanation is that this serves to distinguish between copulas and auxiliaries as they are phonetically identical. About adjectives, our elicited data shows that not all of them inflect, as seen with *xuʃ*. In regard to this, two possible hypotheses can be postulated. First, that only adjectives that end with a vowel show inflectional patterns or second, that *xuʃ* is an anomaly of the language. However, the research in Bhatia (1993) research states that only adjectives that end in -*a* undergo inflectional patterns. Nonetheless, further data would be necessary to test which hypothesis stands. Finally, we found that while present-tense verbs inflect based on the gender and number of the subject, additional data would be necessary to see whether it also inflection occurs depending on the case in the present tense. As plurality in other tenses were not elicited in the present study, we cannot state in concrete that it happens, and as such a further study would be needed to confirm this.

Next, about the DP structure, we found that Punjabi is not restrictive in terms of adjectival order in non-focused contexts. However, in sentences where there is one contrastive element, we notice that the contrasted element must come first before the other adjectives. In sentences with two contrasted elements, we noticed that the adjective for size must come first before the other adjectives.

Finally, about verb tenses and aspect, we noticed that the verb itself inflects for tense. Interestingly, we found that only the present tense had the addition of an auxiliary verb whereas the other tenses did not. We also consider the possibility that different copular/auxiliary verbs can be used in Punjabi to illustrate the degree of remoteness

of a past action, where *ne* would indicate a proximate past while *si* would communicate a remote past. From this, we also hypothesised that the copular/auxiliary verb also seems to inflect for number as elicitations from our consultant were done with a plural subject and had *ne* as the copular/auxiliary verb but the research in Bhatia (1993) were done with a singular subject and thus had *(h)e* as the copular/auxiliary verb. Nonetheless, a further study is necessary to test this.

8   References

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