Distributed Morphology Based Study of Arabic Loan Nouns in Punjabi

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Abstract

The study highlights the morphological properties of Arabic loan nouns in Punjabi with reference to gender, number and case marking. It analyzes the inflectional processes of loan nouns in accordance with the inflectional patterns of Punjabi. Distributed Morphology provides theoretical basis during analysis. The analysis consists of two phases. In the first phase, three groups of masculine and four groups of feminine noun inflections of Punjabi are formulated. In the second phase, Arabic loan nouns are grouped accordingly. The groups are shown in the tables with examples and their morphological properties are further discussed qualitatively. The study confirms and shows contrast with various features described in the previous studies. It is a foundational study in the realm of loanword morphology of Punjabi with reference to Arabic and the application of DM for further investigation.

Keywords: Morphology; Punjabi; Arabic; Loanwords; Distributed Morphology

1. Introduction

Punjabi; an ancient Indo-Aryan language borrowed words from various languages due to the fact that it went through a close contact with them. Being a largely spoken language of Indo-Pak subcontinent, it mainly took influence of Arabic. Islam played a pivotal role in the spread of Arabic outside the Arabic Peninsula (Thomason, 2009). In fact, Muslim traders, invaders and rulers brought the classic language and culture to this multilingual region. It made a great impact on the regional languages, so Punjabi was of no exception. A number of articles on loanwords envisage the dominant influence of Arabic (as a donor language) as compared to borrow words (as recipient language) from others into Arabic. Kabuta (1998) high points that sometimes, loanwords have to pass through a long journey. It happens when the donor language is not directly exposed to the people of the area. It is so that Ciluba: a Bantu language was never exposed

to Arabic but has taken loanwords from it. The contact between Arabic and Punjabi is of a similar nature in which a purposive contact was there between the two languages.

The influence of Arabic on Punjabi is dualistic and indirect in nature, say, indirectly from Persian language (Abbas, Chohan, Ahmed & Kaleem, 2016). which took loanwords from Arabic as stated by Naim (1999) with reference to Urdu. Leslau (1958) highlights an extensive number of Arabic loans in an Ethiopian classic language Geez which literature is translated from Arabic. The political influence and economic spread are brought to the region by Arabic emigrants which matches the context of situation in the Indo-Pak subcontinent. The author also suggests study of Arabic loanwords due to a dearth noticed at that time. The situation is quite similar in present time with reference to other languages.

Although Punjabi is the native language of approximately 60% of the population of Pakistan (Kalra and Butt, 2013), yet generally there is a dearth of morphological study and, particularly, loanword morphology in it. The first step towards the study of language contact is the product and not the process of loanwords (Greavu, 2014). The very step is yet not taken with reference to Punjabi. Moreover, the previous studies on loans lack the application of theoretical framework with respect to morphology. That is to say, the researcher finds the gap and intends to contribute a pioneering work to the existing body of knowledge. Furthermore, it is hypothesized that loanwords undergo similar morphological (inflectional and derivational) patterns during assimilation in the same lines followed by Punjabi native words. Following are the objectives of the proposed study.

1.1 Research Objectives
The study aims at highlighting morphological properties of Arabic loan nouns (gender and number marking processes) with respect to the processes exercising in the recipient language (Punjabi). For the purpose, following are the research questions in order to communicate the objectives of the study.

1.2. Research Questions

i. What are the morphological properties of Arabic loan nouns in Punjabi in the light of Distributed Morphology?

ii. What are gender and number marking processes identified in Arabic loan nouns, whether they follow the native language system or source language form?

1.3. Significance of the Study

The research is unique as well as beneficent in the world of theoretical linguistics with reference to morphological study of loans in Punjabi, the area which is not addressed yet. Particularly, variety of Punjabi spoken in Pakistan lacks in the same vain. Though the study of Hussain, Mahmood, and Mahmood (2012) is available yet it addresses phonological adaptation of English loans in Punjabi. A corpus-based study by Kaur (2017) on Malay borrowing in Punjabi is available but it provides quantification and listing of borrowed instances and no linguistic aspect is discussed. That is to say, the current study is a novel addition in the realm of loanwords morphology as well as the study on indigenous language of Pakistan. The next section provides a review of the available related literature.

2. Literature Review

Languages of the world undergo a constant process of language contact that results in the expansion of the vocabulary, no matter, to which language family they belong. Arabic- a rich ancient language belongs to Afro-Asiatic language family and is a big donor language. Uni (2017) conveys that Arabic is second largest donor language to Malay language and high points the influence of Islam. It is worth saying, but it is not restricted only to the religious vocabulary. In the case of Punjabi, the loan nouns belong to multiple domains of life.

Darwish (2016) studies Arabic loans in English and comprehensively discusses other pieces of research in the field with a brief description of historical review. Though, the study presents a systematic debate on Arabic loans yet it is not particular to any linguistic domain. Henceforth, no theoretical debate is found. Similarly, a study of Hausa by Greenburg with reference to Arabic loans dates back to 1947. It describes historical background and Islamic influence on the language, enlisting loans and, to

some extent, phonological integration. This study also strengthens the researcher's observation regarding the dearth of morphological descriptions of loanwords.

The scarcity of morphology based studies in the realm of loanwords is not restricted to Arabic loans, rather it is extended to generally all the other languages. Bahumaid (2015), study of English loanwords in a dialect of Arabic, though, discusses the semantic, morphological and phonological features of the subject matter thoughtfully, yet lacks in the application of theoretical framework in order to analyze the selected data. Similarly, Rees-Miller (1996) discusses morphological adaptation of loans from English into Algonquian in a thoughtful manner with a detailed description of gender and number values along with some of their derivational forms, yet lacks in applying any morphological theory. The available studies basically focus on the phonological adaptation of loans with a brief description of morphology which is also mainly dealt with the phonological aspects. In the same line, Thomas (1983) expounds a comprehensive debate on the morphological adaptation of vowel ending of loanwords in three Russian languages. It is a comparative study that high points the vowel endings loans. Some of the vowel based suffixes i.e. –*a*, and -*u* are common in Panjabi as well but with an addition of nasalisation. In Indo-Aryan languages, gender and number marking is, most of the times, based on vowel alternation. The said study discusses the phenomenon with a focus also on phonological treatments of loans that is, of course, unavoidable in vowel based studies but it lacks in theoretical debate. This tradition is still followed till date.

Irwin (2011) offers a comprehensive account of loanwords in Japanese and informs about a loanword dictionary compiled in early twentieth century. His book comprehensively discusses English loanwords in multiple languages. He discusses some patterns of morpho-semantic and morpho-phonological aspects and claims that the similar patterning is applicable to other loans. The present study also intends to devise morphological patterns for loans on the basis of native gender and number patterning.

Irwin's (2011) puts forth an interesting detail about a heavy loaning of functional words (approximately, 60 % of total vocabulary) in Japanese. It focuses on predicate construction from loan nouns and applies syntactic theories during data analysis and claims that loans belong to close group that do not take inflections like native words. Though the present research is limited, particularly to loan nouns yet can be tested with reference to multiple languages.

The study of morphological features of Punjabi with the help of language programming and developing corpus by Humayoun & Ranta (2010, November) is worth mentioning in terms of gender and number marking of Punjabi nouns. The developed program offers possible inflections that are helpful for the present study.

A recent study of Singh, Singh, Singh & Singh (2021) focuses on the assessment f morphological features of Punjabi for sentiment analysis. It offers general overview of Punjabi with specific reference to emotions attach to lexemes. It uses natural language processing for the analysis that does not to touch upon the scope of current study.

The review of literature highlights a dearth regarding theoretical framework for the morphological studies of loanwords (Mangrio, 2016). Additionally the investigation of loanword adaptation is considered essential for morphological study of loans (Oh, 2012). The study of Singh and Sarma (2010) is worth noting. They apply the theory of Distributed Morphology (DM) for the study of nominal inflections in Hindi. Though, the study analyzes noun inflections in particular yet generally, examines new lexemes in the similar patterns outlined for the main study. Their study instigates the researcher analyzing loanwords through the very paradigm. The upcoming section discusses the theoretical mechanics of Distributed Morphology.

3. Theoretical Framework
Distributed Morphology is the theory propounded by Halle and Marantz (1993) for the morphological analysis based on syntactic patterns. According to them, morphology is not restricted to a single element of grammar rather it is distributed among various elements. For instance, during formation of words (syntactic heads) it occurred at any grammatical level through the

processes of head movement and merger. DM substantively favors lexeme-based theory, while considering morphemes as phonological units, whereas it considers inflections as morpho-syntactic entities represented at the position of nodes that actually govern root words. The similarity between the both theories is their major postulation: Affixless-ness of the word formation rules (WFRs). They contemplate affixes as a *by-product* of WFRs of roots (ibid).

Furthermore, syntactic procedures are incorporated in hierarchy of terminal nodes. According to this approach, lexicon is termed as formative list that lacks phonological characteristic at terminal nodes, but semantic and syntactic features are incorporated. This formative list acquires a grammatical category after syntactic operations: merge, fission, impoverishment and fusion. The entire process is termed as insertion, which assigns the status of vocabulary to the formative list (Singh and Sarma, 2011). In short, DM claims that vocabulary has an independent organization and is rule-governed (Galani, 2003).

DM is applied to the present study due to its flexibility to incorporate morphological and phonological characteristics of morphemes during inflectional processes. Moreover, Singh and Sarma's (2010) study of Hindi Noun Inflections is incorporated as a guideline during data analysis. The qualitative method of research is followed for the data analysis and with a descriptive discussion. The main data source is a Punjabi Dictionary (two volumes): *Waddi Punjabi Lughat* (2002) due to its etymological description. Secondary data source is Arabic to English dictionary (Steingass, 1884) for the clarification of grammatical and phonological aspects of the selected instances. The data sources are thoroughly casted about for Arabic loans manually. Non-random convenient sampling technique is applied on the selected instances. The qualitative nature of the study limits the number of nouns for the analysis due to the fact that morphological features are the focus of the study.

The selected instances are further classified according to their gender and number marking. The data are categorized in groups in accordance with their nominal and oblique forms based gender and number marking, shown in tables. Firstly, they are identified with native words examples and secondly, loan nouns are categorized in the same vain. Furthermore, they are descriptively analyzed and discussed with examples. The next section presents analysis and discussion of the data.

4. Data Analysis and Discussion

The section offers morphology of Arabic loan nouns within the DM. First of all, basic grouping of Punjabi nouns is needed in order to analyze Arabic Loan nouns in the same pattern. Inflectional morphology of the recipient language is complex in nature as compared to European languages.

Punjabi nouns inflections are gender, number and case based. In Punjabi, there are two genders: feminine and masculine, two numbers: singular and plural (Sreelekha and Bhattacharyya, 2017) whereas five cases: direct, vocative, oblique, locative and ablative (Gill and Gleason, 1969). Direct and oblique cases are commonly used (Bhatia, 2006) that is why, they are analysed in the present study.

In DM, values are shown in positive and negative binaries, for instance, [±pl], [±masc], [±obl]. The unmarked values: singular, masculine and direct/nominative forms are [-pl], [-fem], and [-obl] respectively. These are incorporated in the anlaysis and discussion.

Gender marking in Punjabi is complex as there are a number of masculine and feminine markers. The most common masculine marker is */-a/*, whereas feminine marker is */-i/*, for example, *niaɽ□a* 'baby boy' [-fem], and *niaɽ□i:* 'baby girl' [-masc], respectively. Further, the most prolifically used masculine and feminine number markers are /-e/, and /ã/ for instance, *niaɽ□e* [+pl +masc], and *niaɽ□ıã* [+pl -masc] respectively. However, inflections of nominative/direct and oblique case forms of nouns exhibit inconsistency in number marking as plural marker in oblique form of masculine and feminine take the same marker /-ã/ for instance, *niaɽ□eõ* [+pl, +obl, +masc] and *niaɽ□ıã* [+pl, +obl, -masc] respectively.

Some other gender marking patterns are also there such as, */-i/* and */-ən/* as in *pundʒabi* 'the native speaker of Punjabi/resident of Punjab, male' [-fem, -pl] and *pundʒabən* 'the native speaker of Punjabi/resident of Punjab, female' [-masc, -pl]. Some other masculine nouns end with consonant with a null masculine gender marker but their feminine associates take */-ni/* for instance, *ʃer* 'lion' [-fem, -pl] and *ʃerni* 'lioness' [-masc, -pl] respectively. Their number marking exhibits discrepancy as masculine nouns in their plural form show null marking whereas feminine nouns merge with plural marker */–ã/* for example, *ʃer* [-fem, +pl], and *ʃerniã* [-masc, +pl]. As far as their case marking is concerned, masculine singular nouns in both forms (nominative/ direct and oblique) show null marking, whereas in plural oblique form they take */–ã/* such as *ʃer* [-fem, ±obl, -pl] and *ʃerã* [-fem, +obl, +pl]. However, feminine nouns in both singular case forms take */-ni/* whereas in plural case forms (nominative/ direct and oblique) merge with plural marker */–ã/* such as *ʃerni* [-masc, ±obl, -pl] and *ʃerniã* [-masc, ±obl, +pl].

The discussion mentioned above shows an overview of complexity of inflectional morphology of Punjabi nouns on the basis of which they are grouped according to their inflectional patterns with respect to DM analysis. They are shown in Table-01 (as first step towards loan nouns morphology.

Table 1: Groups of Masculine Noun Inflections in Punjabi

	Group-01		Group-02		Group-03	
	Nom	Obl	Nom	Obl	Nom	Obl
Singular						
	Null	Null	-a	-e	Null	Null
Examples	ʈəma:kʰu (Tobacco)	ʈəma:kʰu (Tobacco)	laɽʰa (Groom)	laɽʰe (Groom)	ʃer (Lion)	ʃer (Lion)
	paɽ□i (Water)	paɽ□i (Water)	vadʒdʒa (Musical instrument)	vadʒdʒe (Musical instrument)	sʊnʰa:r (Goldsmith)	sʊnʰa:r (Goldsmith)
Plural	Null	Null	-e	-ɛjã	Null	-ã

	ʈəma:kʰu (Tobacco)	ʈəma:kʰu (Tobacco)	laɽʰe (Groom)	laɽʰ-ɛ**jã** (Groom)	ʃer (Lion)	ʃer-**ã** (Lion)
Examples	paɽ□i (Water)	paɽ□i (Water)	vaʤʤe (Musical instrument)	vaʤʤ-ɛ**jã** (Musical instrument)	sʊnʰa:r (Goldsmith)	sʊnʰa:r-**ã** (Goldsmith)

The Punjabi masculine nouns consist of three groups in the above listed tables. Further, the feminine nouns of Punjabi are grouped in accordance with DM in the Table-02 (A).

Table 2 (A): Groups of Feminine Noun Inflections in Punjabi

Singular	Group-01		Group-02	
	Nom	**Obl**	**Nom**	**Obl**
	Null	**Null**	**-i**	**-i**
Examples	ʤi:bʰ (Tongue)	ʤi:bʰ (Tongue)	pəʈi:li (Sauce/cooking Pan)	pəʈi:li (Sauce/cooking Pan)
	nəsi:b (Fortune)	nəsi:b (Fortune)	ʤindəɽi (Life)	ʤindəɽi (Life)
Plural	**-ã**	**-ã**	**-jã**	**-jã**
	ʤi:bʰ-**ã** (Tongue)	ʤi:bʰ-**ã** (Tongue)	pəʈi:lɪ-**jã** (Sauce/cooking Pan)	pəʈi:lɪ- **-jã** (Sauce/cooking Pan)
Examples	nəsi:b-**ã** (Fortune)	nəsi:b-**ã** Fortune)	ʤindəɽɪ-**jã** (Life)	ʤindəɽɪ-**jã** (Life)

Table 2 (B): Groups of Feminine Noun Inflections in Punjabi

Singular	Group-03		Group-04	
	Nom	**Obl**	**Nom**	**Obl**
	-nĩ	*-nĩ*	*- ət̪*	**Null**
Examples	*tʃit̪ʌxəni*	*tʃit̪ʌxəni*	*bun-ət̪*	*bun-ət̪*
	(hook-bolt of the door)	(hook-bolt of the door)	(Knit)	(Knit)
	tʃit̪ɒni	*tʃit̪ɒni*	*tʃurət̪*	*tʃurət̪*
	(snake)	*(snake)*	(Worry)	(Worry)
Plural	*-jã*	*-jã*	*-ã*	*-ã*
	tʃit̪ʌxənɪ-jã (hook-bolt of the door)	*tʃit̪ʌxənɪ-jã* (hook-bolt of the door)	*bunt̪-ã*	*bunt̪-ã*
			(Knit)	(Knit)
Examples			*tʃurt̪-ã*	*tʃurt̪-ã*
	tʃit̪ɒnɪ-jã	*tʃit̪ɒnɪ-jã*	(Worry)	(Worry)
	(snakes)	*(snakes)*		

The first step of the analysis is completed here with respect to the grouping of inflectional patterns of Punjabi masculine [Table- 01] and feminine nouns (Tables-02 (A & B)]. The researcher hypothesized that Arabic loan nouns endure the inflectional processes of native nouns. The following tables exhibit supportive grouping of loans.

The next step of the analysis is of the most significance in which Arabic loans are characterized according to the above mentioned patterns and shown in the following Table-03 (A).

Table 3 (A): Groups of Masculine Loan Nouns' Inflections in Punjabi

Singular	Group-1		Group-2		Group-3	
	Nom	**Obl**	**Nom**	**Obl**	**Nom**	**Obl**
	Null	**Null**	*-a*	*-e*	**Null**	**Null**
Examples	dʒɪhad̪ (Holy War of Muslims)	dʒɪhad̪ (Holy War of Muslims)	dʒʊbba **(Gown)**	dʒʊbba **(Gown)**	dʒʊab (Answer)	dʒʊab (Answer)
	dʒəhæz (Dowry)	dʒəhæz (Dowry)	sʌdʒd̪a **(Prostration)**	sʌdʒd̪a **(Prostration)**	dʒəlus (Procession)	dʒəlus (Procession)
Plural	**Null**	**Null**	*-e*	*-ɛjã*	**Null**	*-ã*
Examples	dʒɪhad̪ (Holy War of Muslims)	dʒɪhad̪ (Holy War of Muslims)	dʒʊbb-e **(Gown)**	dʒʊbb-ɛjã **(Gown)**	dʒʊab (Answer)	dʒʊab-ã (Answer)
	dʒəhæz (Dowry)	dʒəhæz (Dowry)	sʌdʒd̪-e **(Prostration)**	sʌdʒd̪-ɛjã **(Prostration)**	dʒəlus (Procession)	dʒəluss-ã (Procession)

The morphological complexity of loan nouns can be judged through the fact that gender marking in Arabic is not strictly rule-based and feminine marking is not grammatically marked (Guellouz, 2016). Many languages of the world classify nouns through grammatical gender and assign gender to all the nouns (animate/ inanimate) in agreement within clauses (Alkohlani, 2016). It is so because it is, basically based on coinage such as, *t̪aliq* 'repudiated' and *hamel* 'pregnant' and not based on derivation as it is practiced in Punjabi with alternation of vowels from masculine into feminine.

Similarly, the Arabic number marking is different from that of many other languages, as it has three categories: singular, dual and plural with two types of pluralisation: regular and broken (Himmah and Wahyudi, 2015). This characteristic also differs from the recipient language.

Group-01 of masculine loan nouns takes no number and case markers as their corresponding native nouns for example, *ʤɪhaɖ* 'holy war of Muslims' [±pl, ±obl, -fem], and *ʤəhæz* 'dowry' [±pl, ±obl, -fem] and *hasal* 'result, earning, remainder, profit' [±pl, ±obl, -fem]. The polysemy of *hasal* indicates a high level of integration as in its source language, some of its meanings are not common (Steingass, 1884). Moreover, the phonological readjustment is also evident as in Arabic it is pronounced as *hasɪl* in which the central vowel is altered with the front vowel. Another example of the same group is *xɔf* 'dread, fear'. It is effectively used in loan blend formulations as propounded by Haugen (1950) in which compounds are formed with loanwords. In Punjabi, there are a number of instances of hybrid Arabo-Persian blending, for instance, the adjectives: *xɔfna:k* 'dreadful' [± fem, ±pl] and *xɔfzəɖa* 'frightened'[± fem, ±pl] in which two morphemes are merged: the former- the roots i.e. *xɔf* are Arabic loans, while the latter are Persian suffixes -*na:k* and *zəɖa* respectively. They also belong to the Group-01 with null inflections. Another instance of loan blend belongs to the noun category is *xɔf e xʊɖa:* 'fear of God' [±pl, ±obl, -fem]. This element of the formative list consists of three constituents: Arabic (*xɔf*) + Persian (infix) (-e) + Persian (*xʊɖa:*) respectively. Some other examples, which are highly integrated and considered as native at first place are *zəva:l* 'diminution'[±pl, ±obl, -fem] and *zær* 'poison'[±pl, ±obl, -fem]. The readjustment according to the native system is visible in the latter example where the deletion of /-h/ (*zəhər* → *zær*) is evident. Moreover, the alternation of vowel is also present (*ə → æ*).

The inflections of masculine loan nouns in Group-02 envisage diversity. The nouns in singular nominative form ends at masculine marker –*a* and in oblique form take –*e* which is also plural masculine marker. In their plural nominative form, they carry plural marker–*e* but in plural oblique form, they take -*ɛjã* which is, interestingly a common feminine plural marker. This

phenomenon reveals the fusional property of affixation in Punjabi. Some loan nouns of this group are: *ʤʊbba* 'gown' [-fem, -obl, -pl], *sʌʤʤa* 'prostration' [-fem, -obl, -pl] and ha:*ʃija* 'indentation, fringe' [-fem, -obl, -pl]. All the loan nouns of this kind lack the aspiration present at the end in the source language as readjustment to the recipient language system.

As far as the Group-03 is concerned, it slightly differs in its inflectional property with the Group-01. The masculine loans of this group do not take inflections in their singular nominative and oblique cases as well as in plural nominative case as Group-01 but in their plural forms the most common plural masculine marker *-ã* is merged with the base. This distinctive property differentiates it from the nouns grouped in 01. *ʤʊab* 'answer' [-fem, ±obl, ±pl], *ʤəlus* 'procession' [-fem, ±obl, ±pl], *ʤərra:* 'surgeon' [-fem, ±obl, ±pl] and *ʤʌʤʤ* 'forefathers' [-fem, ±obl, ±pl] all fall in this group. The readjustment of sounds in loans is a common property of loans as stated by Mangrio (2016), it is also present in the case of the last two mentioned examples. In *ʤərra:* the final aspiration is deleted whereas elongation of the vowel is present whereas in *ʤʌʤʤ* a forceful doubling of the last consonant is found. Some other examples of the group are: *ha:kʌm* 'ruler' [-fem, -obl, -pl], *ʤəsu:s* 'detective' [-fem, -obl, -pl], *ɖəma:ɣ* 'brain' [-fem, -obl, -pl], and *əxba:r* 'newspaper'. As far as *ha:kʌm* is concerned, it merges and moves for the formation of other elements of formative list such as, *ha:kəmana* 'dictatorial', *ha:kəmi* 'reign, regime' and *ha:kəmɪjət* 'dominance', in which *ha:kəmana* takes the Persian suffix /-ana/ an adjectival marker, *ha:kəmi* takes /-i/ the native nominal marker whereas *ha:kəmɪjət* takes / -jət/-ət/ an Arabic feminine marker respectively. Moreover, it also exhibits phonological readjustment of native *ha:kɪm* into *ha:kʌm* with an alternation of vowels (-ɪ-→-ʌ-). Similarly, *ʤəsu:s* displays the alternation of vowel (*ʤasu:s* → *ʤəsu:s*) as a readjustment rule. Furthermore, *əxba:r* offers an interesting property of loans described by Mangrio (2016) in which the plural loan noun is used as singular and takes native pluralisation in the sense that *əxba:r* is the plural form of *xəbər* 'news'.

Additionally, the binary description of the nouns becomes problematic in showing the number due to the fact that the nouns remain the same with null inflection in their singular and plural nominative forms but in plural oblique form they take plural inflection *–ã*. By default, they remain the same

in their nominative case in both singular and plural forms, so that they are shown in positive and negative description (±pl). The discussion moves to the next section of feminine loan nouns inflection. The following Table-04 (A) offer the DM description.

Table 4 (A): Groups of Feminine Loan Nouns Inflections in Punjabi

Singular	Group-01		Group-02	
	Nom	**Obl**	**Nom**	**Obl**
	Null	**Null**	***-i***	***-i***
Examples	ʤæb (Pocket)	ʤæb (Pocket)	ʤafəri (Divider, Marigold)	ʤafəri (Divider, Marigold)
	ʤʊra:b (Sock)	ʤʊra:b (Sock)	ha:zəri (Presence, Attendance)	ha:zəri (Presence, Attendance)
Plural	***-ã***	***-ã***	***-jã***	***-jã***
Examples	ʤæb-ã (Pocket)	ʤæb-ã (Pocket)	ʤafərɪ- jã (Divider, Marigold)	ʤafərɪ- jã (Divider, Marigold)
	ʤʊra:b -ã (Sock)	ʤʊra:b-ã (Sock)	ha:zərɪ-jã (Presence, Attendance)	ha:zərɪ-jã (Presence, Attendance)

The Group-01 of feminine loan nouns do not inflect in their singular nominative and oblique forms, whereas take plural marker /-ã/ in their plural nominative and oblique forms. Some of the examples are: ʤæb 'pocket' [-masc, ±obl, -pl], ʤʊra:b 'sock'[-masc, ±obl, -pl], a:jəʈ 'verse of the Holy Book of Muslim' [-masc, ±obl, -pl] and əbabi:l 'Martin'[-masc, ±obl, -pl]. Though the native: boʤa and kʰi:sa are available, yet ʤæb is very commonly used in day to day life, hence, fully integrated. ʤʊra:b in Arabic is singular and its plural form is ʤʊrʊb but in Punjabi, the native plural marker /-ã/ is merged. The religious term a:jəʈ is also prolifically used. It shows a visible

readjustment of vowel into diphthong (*a:- → æ*) and deletion of glide *(-j-)* and schwa during pluralisation process and forms *æ:ʈã*. Furthermore, the merger of native plural inflection */-ã/* exhibits a discrepancy from the Arabic pluralisation *aj:aʈ*. It supports the researcher's hypothesis that loans undergo a similar inflectional process like native nouns.

The Group-02 of feminine loan nouns end with the native feminine marker */-i/* in their nominative and oblique forms and take the most commonly used feminine plural marker */- jã/* in plural nominative and oblique cases. *dʒafəri* 'divider, Marigold' [-masc, ±obl, -pl], *ha:zəri* 'presence, attendance/appearance in court, meal in boarding school, appearance of genies'[-masc, ±obl, -pl], *dʒəsusi* 'Espionage' [-masc, ±obl, -pl], and *hədʒa:mi* 'tonsor' [-masc, ±obl, -pl]. The polysemic nature of *dʒafəri* indicates a high level of insertion into native language due to the fact that in Arabic it denotes 'present and/or inhabitant, settled'. Rests of other meanings pertain to nativised semantic extension. It also shows a deletion of Arabic voiced pharyngeal approximant */-ʕ/.* It is normally replaced by */-a/* in Indo-Aryan languages (Mangrio, 2016). Correspondingly, in *ha:zəri* a similar process of nativisation of Arabic is evident where /-ð/ is replaced with native /-z/ . Another loan *ha:zəra:ʈi* finds place in Punjabi which is related to the nativised semantic field of *ha:zəri*. It refers to the person who actually makes the appearance of genies might be feminine or masculine. However, in the case of *hədʒa:mi* the voiceless pharyngeal fricative /ḥ-/ is readjusted as native /h-/ that is also a common feature of Indo-Aryan languages (ibid).

The discussion is extended to the next two groups of feminine loans, at first place, shown in the Table-04 (B) below.

Table 4 (B): Groups of Feminine Loan Nouns Inflections in Punjabi

Singular	Group-03		Group-04	
	Nom	**Obl**	**Nom**	**Obl**
	- ni	*- ni*	*- əʈ*	**Null**
Examples	*dʒila:vəʈni* (Exile)	*dʒila:vəʈni* (Exile)	*bɪɖɖəʈ* (Addition)	*bɪɖɖəʈ* (Addition)
	əxni (Stock/Soup)	*əxni* (Stock/Soup)	*dʒɪɖɖəʈ* (Modernity)	*dʒɪɖɖəʈ* (Modernity)

Plural	*-jã*	*-jã*	*-ã*	*-ã*
Examples	*dʒila:vəʈɪɪ--jã* (Exile)	*dʒila:vəʈɪɪ--jã* (Exile)	*bɪɖəʈ-ã* (Addition)	*bɪɖəʈ-ã* (Addition)
	əxni--jã (Stock/Soup)	*əxni--jã* (Stock/Soup)	*dʒɪɖɖəʈ-ã* (Modernity)	*dʒɪɖɖəʈ-ã* (Modernity)

The Group-03 of feminine loans contains the nouns end at feminine marker /-ni/ and do not take further inflection in their singular nominative and oblique forms. However, in plural nominative and oblique cases they take plural suffix /-jã/ for instance *dʒila:vəʈni* 'exile' [-masc, ±obl, -pl] and *əxni* 'stock/soup'[-masc, ±obl, -pl]. In the second instance: *əxni* the readjustment rule is applied in the sense that the Arabic *jəxni* becomes *əxni* in Punjabi in which the voiced palatal approximant- in other words: glide- /j-/ is replaced with schwa. /j-/ is not usually used in onset position in many languages of the world and when used, normally vowel comes next to it. This is the case here as the glide follows the schwa.

Group-04 of feminine loan nouns end with the loan feminine marker /-əʈ/ as according to Ryding (2005), Arabic feminine nouns and some adjectives end with an essential /ʈ/. They do not inflect in singular nominative and oblique case forms but take plural inflection /–ã/ in plural nominative and oblique cases. They are prolifically found in Punjabi, for instance, *bɪɖɖəʈ* 'addition' [-masc, ±obl, -pl], *dʒɪɖɖəʈ* 'modernity' [-masc, ±obl, -pl], *rijazəʈ* 'asceticism, rigor' [-masc, ±obl, -pl], *a:fəʈ* 'calamity' [-masc, ±obl, -pl] and *ha:ləʈ* 'condition'[-masc, ±obl, -pl]. In *bɪɖɖəʈ* the deletion of /-ʕ/ is present. Furthermore, the nouns of this category in their plural [±obl] forms go through a syllabic change when merged with /-ã/ for instance, *bɪɖ.dəʈ* → *bɪɖɖ.ʈã, dʒɪɖɖ.əʈ* → *dʒɪɖɖ.ʈã, a:f.əʈ* → *a:f.ʈã, ha:.ləʈ* →*ha:.lʈã* and the deletion of schwa occurs.

Another sub-category within the group is found in which nouns do not inflect in any case, for instance, *dʒɪbɪlləʈ* 'instinct' [-masc, ±obl, ±pl], *a:xrəʈ* 'after life' [-masc, ±obl, ±pl], , *dʒəlvəʈ* 'in public, gathering'[-masc, ±obl, ±pl] , *xəlvəʈ* 'closeting, in private', *ha:kmijəʈ* 'dominion, empire' [-masc, ±obl, ±pl], *səxa:vəʈ* 'generosity'[-masc, ±obl, -pl], *dʒəhaləʈ* 'generosity' [-masc, ±obl, -pl], *dʒəra:əʈ* 'surgery' [-masc, ±obl, -pl], *dʒazɪbɪjjəʈ* ' attraction' *dʒameɪjəʈ* 'conciseness' *dʒarɪhɪjjəʈ* 'aggression, resistance' etc. This pattern is very common in Arabic feminine loan nouns, however their use particularly pertains to the literary and academic purposive. It also indicates that though Islam is the basic source of the spread of Arabic throughout the world yet the loan nouns do not restrict to the religious genre. Diversity in the vocabulary list supports this observation.

5. Conclusion

The study obtained objectives of analyzing morphological properties of Arabic loan nouns in the light of morphological features of Punjabi. The study formulated three groups of masculine and four groups of feminine inflections of Punjabi within the theoretical framework of Distributed Morphology. The Arabic loan nouns are grouped following the patterns of recipient language (Punjabi). The groups are displayed in tables with the given examples and the inflectional properties are further described qualitatively.

The study supported the postulations of Mangrio (2016) with reference to loans in Urdu that singular as well as plural forms of loans simultaneously integrate into the recipient language. The study finds no such example. Moreover, the pluralisation of loan plurals is also evident in the study, for example, *dʒəzba:ʈ* → *dʒəzba:ʈã*. Furthermore, it shows a contrast with the deduction of Rizvi (2007) that */-a/* is mostly used feminine marker but in the present study, the masculine loan nouns of Group-02 ends with the said marker. Furthermore, it supports the findings of Naim (1999) that Arabic loans are inserted via Persian and these loans have no or very little effect on grammatical configuration of the recipient language. The present study finds that the loans undergo native inflectional structures and integrated without influencing the morphological structures and confirms the second possibility of integration given by Winter (2008). The study additionally

supports the postulation of Shackle (2003) with a brief discussion on adjectives that they undergo a similar inflectional pattern of nouns.

Additionally, it also confirms the observation of Mangrio (2016) about phonological readjustment as a normal phenomenon in the study of morphology by owing to interface between morphology and phonology. By large, in Indo-Aryan languages, morphological processes are based on the alternation of vowels. Likewise, scarce in the application of theoretical framework to the study of the morphology of loanwords was also observed. The researcher opted DM for the present study because it incorporates the properties of lexeme-based approach and integrates the phonological treatment via readjustment rule.

The researcher marginally discussed Arabo-Persian loan-blends and hybrid constructions in Punjabi because it was out of the focus of the study. The researcher suggests it as a potential field for further exploration. The study of Arabic loanwords has a room in word classes other than noun category rather adjectives, such as *ʤahəl* 'ignorant', *ʤaɪz* 'permissible, legal', and adverbs such as; *ʤəbrən* 'forcefully' and even interjection such as *a:min* 'so be it, verily' are found there.

The study significantly contributes to the existing body of knowledge with the study of the indigenous language of Pakistan and a largely spoken language of the world with special reference to loanword morphology. It also puts forth the theoretical discussion with ample examples transcribed in IPA for the ease and access of international readership that is another weak area of the available literature. As a final point, it provides a foundation for the future studies in order to explore the new horizons in the realm of morphology.

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