Morphology Of Persian Loan Nouns In Punjabi

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Abstract

The study aims at highlighting morphological properties of Persian loanwords in Punjabi with a focus on analysing gender and number marking processes of loan nouns with respect to the processes exercising in Punjabi. Distributed Morphology theory is applied and six groups of masculine noun inflections and five groups of feminine noun inflections of Punjabi are devised. The Persian loan nouns are categorized following the devised groups. The selected data followed five groups of masculine and three feminine loan nouns' inflection of Punjabi. Groups are shown in tables with examples and further described with a detailed discussion on the properties of loanwords. The study shows similarities and contrast with previous studies. The study is pioneering in the realm of morphology with reference to the application of DM and Persian loanword morphology of Punjabi and offers it as a foundation for further studies.

Key Words: Morphology; Loanwords; Punjabi; Persian; Distributed Morphology

Introduction

Punjabi belongs to the Outer circle of Indo-Aryan language family (Noor et al, 2015) connected to the Indo-Iranian group. According to Singh (2008), almost 120 million speakers of Punjabi position it on the 10th rank in the widely spoken languages of the world. It enjoys the status of official language of Indian Punjab and religious language of Sikhs. In Pakistan, it is the first language of about 60% of the populace (Kalra & Butt, 2013).

Punjabi went through a close contact with a number of languages. Persian is one of them. Being an ancient written language, its history dates back to 6th century BC. Other languages analogous to Persian with respect to literary richness were said to be Greek, Latin and Chinese (Spooner and Hanaway, 2012). In Ind0-Pak subcontinent, Persian was a prestigious language of Mughal period a language of then masters. Language contact gave birth to lexical borrowing which is a common phenomenon in such situations (Bahumaid, 2015). Local languages procured loans from Persian and integrated them into their linguistic systems (ibid). In the same line, Punjabi took loanwords from Persian. Most of them were related to the lexical categories of literature and day to day life.

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Language contact in a multilingual society triggers the process of borrowing. When borrowed words or features are frequently used and conventionalized, they are said to be loan words.

In other words, they become a part of the target language and do not sound foreigner (Hoffer, 2005). Hafez (2008) defines loanwords as persistent, putative and wellestablished words regularly used by monolingual speakers of recipient language. It is not simply, lending words rather the phenomenon of borrowing is rule governed. Haugen (1950) describes a feature of loanwords that they become a part of the recipient language only when they fit into the syntax of the host language.

It is plausible due to the fact that integration occurs when a new lexical item incorporates into another language. It is worth noting that forms as well as meanings of words are taken as loans and phonologically and morphologically (if needed) adapted into the recipient They can be totally assimilated, partially assimilated and sometimes, language. unassimilated. Furthermore, the difference between borrowed words and loans is that the speakers of recipient language might not recognize them as outsider (ibid). In the case of Persian loans in Punjabi, they are absorbed and are not felt as alien rather are used in daily life, for instance; a:dmi: human being/man and əsa:ni: ease and in some of the cases they are considered as literary, classic and archaic and not alien such as, a:stã bosi: 'lackey, boasting', abgi:na 'glass/crystal, vessel made of crystal' etc.

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 in Pakistani context. The research particularly in the field of loan word morphology in Punjabi is least visited area not only in Pakistan but also in the globe elsewhere. Though, Mangrio (2016) study of Loanword Morphology of Urdu is available in which he touches upon the Persian strands as well, and Cannon & Kaye's (2001) dictionary of Persian contribution to English language are available yet a dearth is found with respect to Punjabi. That is to say, the researcher finds the research gap and intends to contribute pioneering work to the existing body of knowledge. Following are the objectives of the present study.

Research Objectives:

The study aims at highlighting morphological properties of Persian loan nouns in Punjabi. It focuses to analyses gender and number marking processes of loan nouns. For the purpose, following are the research questions in order to communicate the objectives of the study.

Research Questions:

- i. What are the morphological properties of Persian loanwords in Punjabi?
- Whether gender and number marking of Persian loanwords follow gender and ii. number marking system of Punjabi?

Statement of Problem:

Punjabi; an ancient Indo-Aryan language is amalgamation of words borrowed from different languages. It is hypothesized that loanwords undergo similar morphological (inflectional and derivational) patterns during integration as acquired by Punjabi native words. It is native language of the majority of Pakistan. There is a dearth of morphological study with respect to loanword morphology of Punjabi.

Significance of the Study:

The morphological study of loanwords in Punjabi is a least researched area in the world of linguistics. With reference to Pakistani Punjabi variety, the only available study is in terms of phonological adaptation of English loans in Punjabi by Hussain et al (2012). Another corpus based research (Kaur, 2017) on Malay borrowing in Punjabi is available but it is restricted to quantification and listing of borrowed instances, whereas the present study qualitatively describes and theoretically discusses the morphological maneuvers of loan That is why; the present study is novel in nature and provides with foundational stand point for further research. The upcoming section reviews the available related literature.

Review of Literature

The study of loanwords is common in world's languages due to the fact that no language is said to be pure in true sense, so as Punjabi too is not with exception of borrowing. Languages borrow words from other languages in contact and expansion in vocabulary takes place. According to Bahumaid (2015), borrowing fills the lexical gap found in the recipient language or sometimes, equivalents are not in common use. His 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. The study is worth noting because it postulates the current research hypothesis that loanwords endure morphological processing analogous to native words. Further he opines that British colonization in South Arabia paved the way for the integration of English lexical items, mostly, based on science and technology; including gadgets, machines and other artifacts. In case of Punjabi, a likewise situation occurred when Muslim invaders from central Asia brought Persian with them and it became the language of power.

A number of studies on adaptation of loanwords in Arabic are found. Bueasa (2015) finds Persian loanwords in Classical Arabic. He cites different primordial scholars who maintain a difference of opinion regarding adaptation of loans, such as those who claim that loanwords may or may not adapt any change while getting into the recipient language (Arabic). On the other hand, the followers of Al-Farra opine that Persian loans in Arabic must undergo a change (whether morphologically or phonologically). In Punjabi, both of the phenomena exist, for instance, Persian nouns do not carry gender distinction but when they get their space in Punjabi they acquire gendered case markers. Similarly, when they inflect for number, they take native number affixes as highlighted by Mangrio (2016). He states that Urdu acquires plural markers from Persian which needs investigation with reference to Punjabi.

Bueasa's (2015) study focuses on phonological adaptations and the observations highlighted by him are partially influential for the current study. In the same line, Hafez (2008) conducts morphological study of English loanword integration in Egyptian Arabic and analyses their derivations according to Arabic gender and number inflectional systems. The current study intends to analyze loans along similar lines.

Grant (2015) high points an important feature of loans that, in some cases, they carry some morphological and phonological features from donor language to recipient language. Punjabi shows very interesting phenomenon in which some adjectival markers such as, (negative) -be in bea:bba 'disgraceful' is a loan from Persian.

Greavu (2014) discusses the category of loan-blends propounded by Haugen (1950) in which a hybrid form of loanwords is analysed. In this category, morphological import and substitution is involved. There exist loan-blends in Punjabi where sometimes, foreign affixes are attached to native morphemes or vice versa, for instance, besuadda: 'tasteless', in which Another category of Persian negative marker be- is attached to the native noun. hybrid/blended compounds is also discussed (ibid). There are a number of examples of this kind of loan compounds in Punjabi in which a variety of combinations exist, for instance, Persian-native, Persian-Arabic and Arabic-Persian, for instance, azad ponthi:, 'free willed', azad xeja:l, 'modern/liberal', a:xri: dəm, 'last breath' respectively. Similarly Malah (2014) states English-Malay loan-blends in which hybrid compounds are formed with blending of English loan words with Malay. Interestingly, in Punjabi such example exists: na:vol niga:r 'novelist'. Furthermore, the author adds that the meaning of the loan retains in its loanblended form but here a condition is also stated that the second constituent of the compound remains native that is not fulfilled in the given example. In the aforementioned example both of the constituents are loans; first one is from English and the second one is from Persian.

Haspelmath (2008) analyses the ability of borrowing studying more than thirty languages of the world and opines that the category of adjectives is less likely analysed with this reference. Persian loan adjectives are found in Punjabi, such as; aba: d 'populated, blessed' and a:bi: 'related to water'.

Another feature; modification, is high pointed by Smeaton (1973) while studying morphological processing of loans in Arabic. He is of the view that morphological structuring endures modification in order to harmonize the pattering and root system of the recipient language. Likewise, Hafez (2008) highlights consonant and vowel alternations with respect to loanwords morphology. This is true for the present study as Persian loans undergo some morpho-phonological modifications to match the Punjabi root system, such as Persian həft 'eight' becomes əft and azmudən 'scrutiny, examination' becomes azma:dən . Moreover, the author analyzes morphological properties of loans by devising syllabic based paradigm through which derivations and inflections (gender and number) are analyzed. The present study intends to apply Distributed Morphology in order to answer the research questions.

The review of literature highlights a dearth regarding theoretical framework for the morphological studies of loanwords (Mangrio, 2016). Additionally, investigation of loanword adaptation is considered essential for morphological study of loans (Oh, 2012). The very research offers a model for the study of phonological aspects of loanwords. The present study looks for particularly morphological theory for the analysis of loanwords. Previous studies emphasized on the phonological adaptation of loans (Kang and Ito, 2008) that is not the main focus of the study however, shall be discussed during data analysis where needed due to the fact that there is a strong interface between morphology and phonology.

Furthermore, the studies related to loanwords and borrowings are mostly based on the analysis of integration as performed by Kuitert (2013). It quantitatively analyses the degree of integration and restricts its attention to the phonological aspects yet acknowledges the significance of morphological dimension of the phenomenon. Similarly, Carreiras and Grainger, (2004) highlight the role of morphological processes in the disintegration of words to their roots. Although, they discuss the matter yet do not analyze due to their research limitations. It is evident that the application of morphological theories for the study of loans is not solemnly exercised yet. In this regard, the study of Singh and Sarma (2010) is worth noting. They apply 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 offers theoretical underpinnings in order to achieve the research goals.

Theoretical Framework:

Distributed Morphology provides theoretical framework for the analysis of loanwords. It is propounded by Halle and Marantz (1993) for the morphological analysis on syntactic patterns. They state that morphology is distributed into many different categories rather than a sole component of grammar. This apparently new postulation is based on movement of head words and merging of constituents to form words. The theory substantially agrees with lexeme-based theory of morphology in the sense that it considers morphemes as phonological entities and takes all the inflections as morpho-syntactic properties represented at the points (nodes) that govern roots. Both of the theories are also known as affixless and consider affixes a *by-product* of the application of word formation rules on the roots (ibid).

DM outlines terminal nodes structured in hierarchy in the lines of syntactic procedures. At the level of nodes semantic and syntactic features of formative list (lexicon) are present but phonological feature is missing. After syntactic operations; merger, fission, fusion and impoverishment, the formative list obtains a grammatical category. The process is called insertion after which an element from the formative list gets the status of vocabulary (Singh and Sarma, 2011).

The theory is applied to the analysis of current study because it incorporates the morphological as well as phonological features of morphemes while undergoing inflectional processes. It also encompasses *phonologically null* features describing them through impoverishment rules where one rule is applied at the expense of all other. Furthermore, Singh and Sarma's (2010) study provides Hindi noun inflections, the distribution of morphemes into various classes and their inflectional rules. That is why, the present study takes it as a guideline in order to analyse Persian loanwords morphology with reference to Punjabi gender and number marking systems.

The study is qualitative and by nature descriptive. The data is selected manually from a Punjabi Dictionary: *Waddi Punjabi Lughat* (2002) which carries the etymology of words. The next step is highlighting the patterns of gender and number marking of Punjabi. Further, Persian loanwords are classified according to the gender and number markers. The data analysis is presented in tabular form and further descriptively analysed. Data analysis and discussion with ample examples is presented in the following section.

Data analysis and Discussion

This section provides data analysis in accordance with DM. The discussion on the features of loanword morphology is also presented. It is evident that inflectional morphology in Punjabi is very vivacious as compared to European languages (Gupta, 2014). Punjabi nouns inflect for gender, number and case. There are two genders: masculine and feminine and two distinctions of number: singular and plural (Sreelekha and Bhattacharyya, 2017). There are five case forms in Punjabi: direct, oblique, vocative, ablative and locative (Gill and Gleason, 1969). Direct and oblique forms are common in use (Bhatia, 2006) along with vocative case form but ablative and locative are not in use (Shackle, 2003). Similarly, adjectives may take inflections in accordance with their respective nouns (ibid). Inflectional features are presented as binary values [±pl], [±masc], [±obl]. Their unmarked values are Singular [-pl], Masculine [-fem] and direct/nominative case form [-obl] and marked values as vice versa.

In Punjabi, there are different patterns of gender marking. The most prolifically used masculine marker ends with /-a/ marker, generally embedded in masculine nouns and adjectives. Their counter feminine nouns and adjectives are formed with the alternation of suffix /-a/ into suffix /-i/, for instance; bənḍa 'man' [-fem], and bənḍi 'woman' [-masc]. Similarly, some of the adjectives inflect for gender such as; faŋga 'nice'[+masc] and faŋgi '[-masc]. As far as the number marking is concerned, widely used masculine plural marker is /-e/ and its associative feminine plural marker is /ā/ for instance, bənḍe [+pl, +masc,] and bənḍiā [+pl, -masc]. Likewise, adjectives take gender/ number inflections as; faŋge [+pl, +masc] and faŋgiā [+pl, -masc]. Moreover, the case inflections of nouns present a discrepancy in number marking of nominative and oblique forms. The masculine oblique

plural form is like; bəndeõ [+pl, +obl, +masc], whereas in the case of feminine oblique plural form is the same as nominative plural form of feminine noun such as; bəndiā [+pl, +obl, masc]. The study focuses on the two major case forms; nominative/direct and oblique due to the fact that all the nouns do not necessarily take vocative case form in common (Shackle, 2003) for instance, abstract and uncountable nouns except for poetic purposes like personification. This is the general view of noun inflections in Punjabi. There are some other gender inflection patterns such as; masculine nouns marked by /-i/ and their counterpart feminine nouns are marked with /-ən/ in gvandi and gvandən 'neighbor (male/female)' respectively. It is also evident that nouns having consonant at their final position such as fəki:r 'beggar (male)' show null inflection for masculine when compared to their counter feminine nouns: fəki:rni 'beggar (female)'. Nouns of such type in their number inflection also show the same phenomenon of null inflection, for instance, for plural fəki:r takes no suffix and is used as it is for plural, whereas feminine singular form faki:rni becomes fəki:rnıã [+pl, -masc,] as plural after the merging plural feminine suffix /-ã/. In contrast, for case marking masculine noun remains the same (null inflection) in its singular oblique form but takes suffix $-\tilde{a}$ for plural oblique case form such as; $f \ge ki : r\tilde{a}$ [+pl, +obl, +masc]. On the other hand, feminine nouns in their both number (singular/plural) and case forms (direct/oblique) show no change for example, fəki:rni [-masc, ±obl, -pl] and fəki:rniā [-masc, \pm obl, +pl].

The nouns are categorized into different groups with respect to their inflections. Later on, the Persian loanwords are analysed according to the inflectional groups of Punjabi nouns as hypothesized earlier. Punjabi masculine nouns with reference to gender, number and case marking are divided into six groups in Table-01 (A) and (B). They are grouped to analyze loanwords morphology, that is why they are not discussed in detail.

	Group-01		Group-02		Group-03	
SINGULAR	Nominative	Oblique	Oblique Nominative Obliq		lique Nominative	
	Null	Null	-a	-е	Null	Null
	<i>t</i> fan	tfan	bənda	bənde	kəhr (House)	kəhr
	(moon)	(moon)	(man)	(man)		(House)
					fəki:r (beggar)	
Examples	pvhkh (hunger)	$p\sigma^h k^h$	niãra/kakka	niaę̃e/		f∂ki:r
		(hunger)	· ·	kakke		-
			(baby boy)	(baby boy)		(beggar)

PLURAL	Null	Null	- e	-jã	Null	-ã
	tf л n	<i>t</i> fлn	bənde	bənde-jã	kəhr (House)	kəhr-ã
	(moon)	(moon)	(man)	(men)		(House)
					fəki:r (beggar)	
Evomples	pv^hk^h (hunger)	pvhkh	niar̃e/	niãre-jã		fəki:r-ã (beggar)
Examples		(hunger)	kakke	kakkɛ- jã		
				(baby boy)		
			(baby boy)			

	Group-04		Group-05		Group-06	
SINGULAR	Nominative	Oblique	Nominative	Oblique	Nominative	Oblique
	-i	Null	-an	Null	-pa	-e
	had3i	had3i	səmma:n	səmma:n	b ^h ıra:pa	b ^h ıra:p-e
	(pilgrim)	(pilgrim)	(luggage, belongings)	(luggage, belongings)	(brotherhood)	(brotherhood)
Examples	gvandi	goandi	naksan	naksan	sijappa	sijapp-e
	(neighbor)	(neighbor)	(Loss)	(Loss)	(worry)	(worry)
PLURAL	Null	-ã	Null	Null	-jã	-jã
	had3i	hadʒi-ã	səmma:n	səmma:n	b ^h ıra:pε-jã	b ^h ıra:pɛ-jã
	(pilgrim)	(pilgrim)	(luggage, belongings)	(luggage, belongings)	(brotherhood)	(brotherhood)
Examples						
	gvandi	gvandi-ã	naksan	naksan	sijappε-jã	sijappe-jã
	(neighbor)	(neighbor)	(Loss)	(Loss)	(worry)	(worry)

Similarly, feminine nouns in Punjabi are categorized into five groups based on inflections. They are shown in Table-02 (A) and (B) with a description of number gender and case.

Table-02 (A): Groups of Feminine Noun Inflections in Punjabi

	Group-01		Group-02		Group-03	
SINGULAR	Nominative	Oblique	Nominative	Oblique	Nominative	Oblique
	Null	Null	-i	-i	-nĩ	-nĩ
	ra: <u>t</u>	ra: t	bəndl	bəndi	fəki:r-nĩ	fəki:r-nĩ
	(night)	(night)	(woman)	(woman)	(fem-beggar)	(fem-beggar)
Examples	.,	gall (talk)	. 2017 11.	niãįi/		_
	gall		niãri/kakki	kakki	sapnĩ	sapnĩ
	(talk)		(baby girl)	Kakki	(snake)	(snake)
				(baby girls)		
PLURAL	-ã	-ã	-jã	-jã	- ã	- ã
	ra: t -ã (night)	ra: t -ã	bən <u>d</u> ı-jã	bən <u>d</u> ıjã	fəki:rnı-ã (fem-	fəki:rnı- ã (fem-
		(nights)	(women)	(women)	beggars)	beggars)
Examples	gʌll-ã					
Examples	(talk)	gall-ã	niar̃ 1-jã /	niaŗ̃ı-jã	sapnı- ã	sapnı- ã
	(min)	(talks)	kakkı-jã		(snakes)	(snakes)
			(baby girls)	<i>kakkı-jã</i> (baby girls)		

It was hypothesized that Persian loans undergo the same inflectional processes as the native nouns. The Tables below support it. Persian loan nouns are categorized and listed below on the above listed patterns. The data collected are analysed on the same lines. Five groups of masculine [Table-03 (A) and (B)] and three groups of feminine loan nouns inflections [Table-03 (A)]. As far as the Group-1 is concerned, masculine loan nouns following this pattern do not take any inflection for number and case as their native counterparts. For example, seeb 'pain, sorrow, ghost' $[\pm pl, \pm obl, \pm fem]$, $\pm fem$], $\pm fem$], $\pm fem$] and $\pm fem$]. Substitution of vowel is evident for the readjustment of first two loanwords. Persian aseb and $\pm fem$]. It is a productive root which helps in the derivation of

new elements of formative list, such as; a:bʃar 'waterfall'[-pl, -obl+fem], a:bdoz 'submarine' [-pl, -obl+fem] etc. It is also prolifically used in loan blend constructions as postulated by Haugen (1950).

	Group-04		Group-05		
SINGULAR	Nominative Oblique		Nominative	Oblique	
	-∂n	Null	- ə <u>t</u>	Null	
	hadz-ən	had zən	səŋg-ə <u>t</u>	səŋg-ə <u>t</u>	
	(pilgrim)	(pilgrim)	(companionship)	(companionship)	
Examples					
	gvand-ən	gvandən	la:nə <u>t</u>	la:nə <u>t</u>	
	(neighbor)	(neighbor)	(condemn)	(condemn)	
PLURAL	-ã	-ã	-ã	-ã	
	had3n-ã	had3n-ã	səŋg <u>t</u> -ã	səŋg <u>t</u> -ã	
	(pilgrim)	(pilgrim)	(companionship)	(companionship)	
Examples					
	gvandn-ã	goandn-ã	la:n <u>ţ</u> -ã	la:n <u>t</u> -ã	
	(neighbors)	(neighbors)	(condemn)	(condemn)	

It is worth noting that these hybrid blends are formed with a combination of Persio-Arabic constructions which fall in Group-01, for instance; a:bezʌmzʌm 'Holy water of Muslims', a:behəjat 'nectar of youth', and a:behəram 'forbidden water (alcohol)'. Loan adjectives also follow the inflectional pattern of Group-1, for instance; a:bdida 'a sentimental person (with tears in his/her eyes)' [±pl, ±fem], əbad 'populated, prosperous'[±pl, ±fem], əzad 'free'[±pl, ±fem] and a:zʌrda 'worries, sad'[±pl, ±fem], a:bdar 'one who makes arrangement of water'[-pl,-fem], and a:bijar 'one who irrigates the field'[±pl, -fem].

Correspondingly, Group-02 of loan nouns take the most common masculine marker -a in nominative case which is substituted by -e plural (masculine) marker. Remarkably, singular oblique form of the noun also takes -e marker, whereas oblique plural takes $-j\tilde{a}$ for instance, həlva 'dense sweet confections' [-pl,-obl,- fem] and $\int ora$ 'broth, curry'[-pl,-obl,- fem].

Both of the nouns are related to food items used on daily basis in Punjabi and are hardly recognized as foreigner. In the second stance, phonological readjustment is evident as its original form in Persian is f which is readjusted in Punjabi with a deletion of consonant - b-.

	Group-1		Group-2		Group-3	
SINGULAR	Nominative	Oblique	Nominative	Oblique	Nominative	Oblique
	Null	Null	-a	- е	Null	Null
	əseb	əseb	həlva	həlve (dense	və <u>t</u> ən	və <u>t</u> ən
	(pain, sorrow, ghost)	(pain, sorrow, ghost)	(dense sweet confections)	sweet confections)	(country)	(country)
Examples	go <u>ſţ</u>					
	(meat)	gof <u>t</u> (meat)	<u> Jora</u>	<u>fore</u>	<i>təhol</i>	<i>təhol</i>
	ətfa:r (pickle)	ətfa:r (pickle)	(broth, curry)	(broth, curry)	(big drum)	(big drum)
PLURAL	Null	Null	-e	-jã	Null	-ã
	əseb	əseb	həlve	həlvε-jã (dense sweet	və <u>t</u> ən	və <u>ţ</u> n-ã
	(pain, sorrow, ghost)	(pain, sorrow, ghost)	(dense sweet confections)	confections)	(country)	(country)
Examples	goft (meat)	goʃt̪		∫ <u>or</u> ε-jã		
	ətfa:r (pickle)	(meat)	<u>fore</u>	(broth, curry)	<i>təhol</i>	təhol-ã
		<i>ətfa:r</i> (pickle)	(broth, curry)		(big drum)	(big drum)

pindzara [-pl,-obl,- fem] is an interesting instance of this group as it explicates semantic shift from donor to recipient language. In Persian it refers to 'window', whereas in Punjabi it denotes 'cage'. Moreover, pindzar 'skeleton' is derived through back formation from it. Some other examples of the same group are a:bla 'lesion'[-pl,-obl,- fem] and abgi:na 'glass/crystal, vessel made of crystal'[-pl,-obl,- fem]. Similarly, compound noun, such as; a:bxora 'earthen glass' [-pl, -obl-fem] belongs to the Group-2. In this particular instance, the compound consists of two roots and one abstract morpheme, a:b, xor, and -a respectively.

Interestingly, the abstract morpheme is native nominal marker that is attached to two Persian loans a:b, and xor. It goes through the adjustment rule with respect to Punjabi and at times, is pronounced as a:xora with a deletion of consonant /b/. Likewise, another formation from a:b is a:bijana 'wages from government for irrigation' [-pl, -obl-fem] follows the inflections of Group-02. The loan adjectives that belong to Group-02 are derived from nouns with the Persian loan abstract morpheme be-for instance, bea:bba 'disgraced/defamed' [-pl, -fem], and bearamma 'uncomfortable' [-pl, -fem]. Furthermore, beabruija 'disgraced/defamed' [pl, -fem] is a combination of four morphemes: be, abru, i and-a, (according to linear description: Persian loan negative marker, Persian loan noun, native adjectival marker and native singular masculine marker respectively). During word formation, a phonological readjustment occurs when long -i of adjectival marker is substituted with -i and for the sake of appropriate assimilation of the sound j is attached. Similarly, in the case of beassa 'disappointed' [-pl, -fem] is an example of hybrid or loan-blend which is formed by a combination of Persian abstract morpheme be- and native noun -ass carrying native singular masculine adjective marker-a. The same is the case with beopa 'incurable' which is a blend of Persian abstract and Punjabi root morphemes.

Further, inflection of nouns in Group-03 is specific to the plural oblique form. Persian loanwords also follow this pattern such as; vatan 'country' [\pm pl, -obl, -fem], and tahol 'big drum' [\pm pl, -obl, -fem]. The second example explicates the phonological process of devoicing when Persian d^hol readjusted in Punjabi as tahol. It is significant to state that devoicing is a common trait of Punjabi phonology for example; g^her 'house' and $d^handora$ 'chaos/ propaganda' in Urdu is pronounced as ke^hr and ta^hndora in Punjabi respectively.

Furthermore, another instance of the same group; maka:n 'house/lodging' [\pm pl, -obl, -fem] in its plural oblique form takes $-\tilde{a}$. Correspondingly, kassai 'butcher' [\pm pl, -obl, -fem], and aza:r 'pain, sorrow, trouble' [\pm pl, -obl, -fem] follow the same inflectional procedure. In the case of day semantic shift is observed due to the fact that in Persian it refers to 'warm', whereas in Punjabi it denotes 'stain' [\pm pl, -obl, -fem]. There is another instance of semantic shift found in bazorag, which means 'big (an adjective)' in Persian, whereas in Punjabi it stands for 'elderly/aged (person)'. This example not fully satisfies the inflectional properties of group-3 and exhibit a slight difference in its oblique form. It takes $-\tilde{a}$ in both of the oblique forms: singular and plural. It also exhibits phonological readjustment on the native pattern and splits the consonant cluster at coda position. Readjustment occurs as $bazorg \rightarrow bazorag$.

Table-3 (B) shows two more groups of masculine loan nouns inflections as under.

	Group-4		Group-5		
SINGULAR	Nominative	Oblique	Nominative	Oblique	
	-i	Null	-an	Null	
	dərzi	<u>d</u> ∂r3i	dəndan	дәnдаn	
	(Tailor)	(Tailor)	(teeth)	(teeth)	
Examples					
	kəsai	kəsai	xandan (family)	xandan (family)	
	(butcher)	(butcher)			
PLURAL	Null	-ã	Null	Null	
	₫ərʒi	dərzi-ã	дәпдап	дәnдаn	
	(Tailor)	(Tailor)	(teeth)	(teeth)	
Examples					
	kəsai	kəsai-ã	xandan (families)	xandan (families)	
	(butchers)	(butchers)			

Furthermore, masculine loan noun inflections of Group-04 end with-i and takes $-\tilde{a}$ for plural oblique form such as; dargi 'tailor' [\pm pl, -obl, -fem] and kasai 'butcher' [\pm pl, -obl, -fem]. There is another example of this group: fadgi 'Army man' [\pm pl, -obl, -fem]. In literal sense, it refers to masculine nouns but in particular case, by the changing norms, female army person also shares the same noun. Similarly, there is another loan noun a:dmi 'human being/man'[\pm pl, -obl, \pm fem]. An interesting feature of this particular example is its capacity of neutral gender marking. It is so because a:dmi is basically used for masculine noun but at times, it is also used for a common gender while using it for humanity. It is in the same line, as $human\ being$ is also used for common gender in general. Similarly, loan adjective dgigri 'fast (friend)' [\pm pl, -fem] falls into Group-04. It modifies strictly to masculine nouns in Punjabi.

Moreover, Group-05 contains loan nouns inflections in which nouns end with -an that is a Persian plural marker. However, in Punjabi these loans present collective sense of nouns for example, dondan. It has an interesting property that it stands for 'tooth' in Persian but in Punjabi it refers to 'teeth'. It also shows the process of back formation through which dond

is formed which is specific to Punjabi. It is commonly used for both; singular and plural forms, whereas d = n d = n is used in particular contexts e.g. for literary purposes or as honorific use; d = n d = n (holy/honorable) teeth' or for professional use, d = n d = n (prosthodontics'. Correspondingly, x = n d = n (family' [$\pm p = n$], $\pm ob = n$], refers to a sense of collective representation of a kin.

Another example of this group is dyozdan 'wallet, docket, book' which is used to keep a collection of currency and other stuff likewise. Similarly, goldan 'flower vase' [\pm pl, \pm obl, -fem] also carries the sense of a collection of flowers and leaves. Furthermore, me^hman 'guest' is Persian loan beside the fact that it has native equivalent $par\tilde{o}\tilde{f}e$ but both are interchangeably used. It is used for both genders so that may be presented as [\pm pl, -obl, \pm fem]. In its plural oblique form it takes $-\tilde{a}$, that is why, it partially fulfills the pattern of Group-05. Moreover, insan [-pl, -obl, -fem] takes- \tilde{a} as $insan-\tilde{a}$ [+pl, +obl,-fem]. Its plural marker follows the native pluralisation of masculine noun but it does not fall into the group five due to the fact that it does not follow the impoverishment rule for null suffixation in its [+pl, +obl, -fem] construction.

Feminine loan nouns inflections are presented in the following Table-04 with examples.

	Group-1		Group-2		Group-3	
SINGULAR	Nominative	Oblique	Nominative	Oblique	Nominative	Oblique
	Null	Null	-i	-i	- ə <u>t</u>	Null
	fam	fam	əsani	əsani	kefij-ə <u>t</u>	kefij-ə <u>t</u>
	(evening)	(evening)	(ease)	(ease)	(state, condition)	(state, condition)
Examples					sur-ə <u>t</u>	
	zəbban	zəbban	əvargi	əvargi	(appearance, face)	sur-∂ <u>t</u>
	(tongue)	(tongue)	(vagrancy)	(vagrancy)	(,	(appearance, face)
PLURAL	-ã	-ã	-jã	-jã	-ã	-ã
	ſam-ã	ſam-ã	əsanı- jã	əsanı-jã	kefij <u>t</u> -ã	kefij <u>t</u> -ã
	(evening)	(evening)	(ease)	(ease)	(state, condition)	(state, condition)
Examples						
	z∂bban-ã	zəbban-ã	əvargı-jã	əvargı-jã	sur <u>t</u> -ã	sur <u>t</u> -ã
	(tongue)	(tongue)	(vagrancy)	(vagrancy)	(appearance, face)	(appearance, face)

Feminine loans also follow the inflectional patterns of Punjabi nouns. The selected examples follow the patterns of three groups in common. Group-1 contains those nouns which take $-\tilde{a}$ in their plural and oblique plural forms for instance, $\int am$ 'evening' [-pl, \pm obl, +fem], zabban 'tongue' [-pl, \pm obl, +fem]. Some other examples are; asti:n 'sleeve' [-pl, \pm obl, +fem], kttab 'book' [-pl, \pm obl, +fem], and sinf 'genre' [-pl, \pm obl, +fem]. Another example of the same pattern is doxtar 'daughter' [-pl, \pm obl, +fem] which takes plural marker $-\tilde{a}$ for plural nominative as well as plural oblique forms. It posits a high degree of adaptation at morphological as well as phonological levels. Morphological integration is evident due to the fact that doxtar when used for plural takes native plural marker $-\tilde{a}$ as contrary to Persian plural marker -an. Contrary to this, when it is used for specific purposes such as a collective noun; doxtaran e millot 'daughters of the nation' as a compound loan noun then its donor plural form is retained.

Similarly, Group-2 of feminine loan nouns follows the most productive inflection pattern. These nouns contain the most productive feminine marker -i which takes $-\tilde{a}$ for making plural in both of the cases: nominative and oblique for instance, asani 'ease' [-pl, -obl, +fem] and avargi 'vagrancy' [-pl, -obl, +fem]. At the stage, it is worth noting that most of the times, Persian loans that start with long a- convert into a- as evident in these examples. Persian asani becomes asani in Punjabi. It is generalized on the basis of the analysis of such kind of examples while discussing masculine groups in continuation. Moreover, loan compound nouns also observe the same pattern of Group-2 such as; asani 'guidance' [-pl, asani '(street) robbery' [-pl, asani 'springery'. In all the given examples, the compound nouns are three morphemic words which are used without any semantic change from their donor language.

Conclusion

The study devised six groups of masculine noun inflections and five groups of feminine noun inflections of Punjabi through the theoretical underpinnings of Distributed Morphology. The Persian loan nouns are categorized following the devised groups. The selected data followed five groups of masculine loan nouns' inflections and three feminine loan nouns' inflection of Punjabi. Groups are shown in tables with examples and further described with a detailed discussion on the properties of loanwords.

The current study supported the claim that noun is the most frequently borrowed word class. Punjabi has prolifically taken loan nouns from Persian. Noun inflection in Punjabi is very complex and is hard to categorize. Singh and Kumar (2013) propounded that due to the variedness of Punjabi noun inflection they cannot be sequentially categorized. Furthermore, Gupta's (2014) study also supported the claim and identified 18 inflection based endings of nouns in Punjabi in order to make the data efficient for computer-mediated stemming with examples given in Gurmukhi script, whereas the present study attempted to categorize it in different groups with the help of DM and applied it on inflections of loanwords with reference to gender, number and case with data transcribed in IPA. This is the hallmark of the present study which filled the gap of morphological study of loanwords with the application of the morphological theory.

The present study supported the postulation of Mangrio (2016) that Persian nouns (though do not inflect for gender) when entered in the recipient language take gender and plural inflections of that particular language and showed a discrepancy in the behaviours of both of the languages. It further supports another claim of Mangrio (2016) that loan nouns which end with the regular masculine marker -a are treated as masculine automatically for instance meda 'stomach' and fifa 'mirror, glass' etc. This postulation can be extended to the regular feminine maker -i ending loan nouns where in most of the cases, such nouns are considered as feminine for example; kentfi 'scissors' and tarakki 'development' etc.

It is observed that some loan nouns are phonologically readjusted while others are integrated without any phonological change. It supports Bueasa (2015) observation that those words which have different consonantal patterns in the recipient language undergo phonological adaptation while other suit it get fit into the recipient language without any change. Katamba (1993) classified affixes into two categories: *neutral* and *non-neutral*. The former are those affixes which do not bring any phonological change into the words they attach, whereas the latter result phonological change. This rule does not apply to the current study due to the fact that phonological change in the root is not resulted due to any particular affix rather it is the discrepancy between the phonological characteristics of the donor and recipient languages. The reason is that affixation of a particular suffix does not always bring change in the phonological structure of roots. That is why, it cannot strictly put into neutral or non-neutral categories.

The current study shows a contrast with Mangrio (2016) observation. He is of the opinion that masculine loan nouns considered as masculine are assigned Persian number markers for pluralization, whereas loans considered as feminine do not take Persian number markers. He observed it in Urdu loanwords, whereas in Punjabi, Persian loan nouns take native plural markers in most of the cases.

A similarity is found to the observation of Hafez (2008) that new words may be derived through back formation of loan words. This process is described during data analysis with the help of examples of the formation of <code>dand</code> from <code>dandan</code> and <code>pindan</code> from <code>pindan</code> shackle's (2003) postulation is also supported that adjectives take inflections according to the nouns. In some groups, adjective are also discussed following the same patterns of nouns.

The researcher high pointed loan-blends in Punjabi but did not discuss it because it was out of the scope of present study which is suggested for further investigation. The scope of loanwords of Persian is very vast, not restricted to nouns and adjective rather adverbs such as; *ahista* 'slowly' and even postposition such as *ruberu* 'in front of' are there. This field has potential for further research and is suggested for further investigation.

Summing up, the study is pioneering in the realm of morphology with reference to the application of DM and Persian loanword morphology of Punjabi and offers it as a foundation for further studies.

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