Morphosyntactic Development of Children Acquiring Urdu and

Punjabi



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ABSTRACT

The present research documents the morphosyntactic development of children acquiring Urdu and Punjabi as first Language. A total of 48 children including one group of 12 Urdu and Punjabi monolinguals age ranged 2.5 - 3.0 and 36 bilingual children age ranged 3.0 - 6.0 divided into six groups, participated in this study. Their acquisition of noun inflectional morphology which includes gender, number and case categories and verb morphosyntax which includes present progressive and present perfect tenses was judged through picture description task. While for all past tenses and oblique case of infinitive video clipping, for adjective-noun agreement live enactment and for present habitual, nominative and oblique infinitives, imperative (request form) interview techniques were used. The results of acquisition of all these grammatical categories by all these children reveal that the acquisition of Urdu and Punjabi morphosyntax is a gradual process which follows overgeneralization of different sorts. This acquisition is better attained with advanced age, more exposure and frequency. Monolingual and bilingual children follow the similar sequence in most of the categories in both the languages. The results are in line with the Constructivists' (usage based) ideas of inflection acquisition.

Keywords: noun, verb morphosyntax, gradual process, constructivism.

DEDICATION

Dedicated to my family

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Thanks.

TRANSCRIPTION SCHEME

Consonants

Orthography	Name of letter	Transcription
ب	bē	b
Ļ	pē	р
ت	tē	t
ٹ	ţē	Т
ٹ	<u>t</u> ē	С
٢	jīm	j
ভ	cē	с
ζ	baŗī hē	h
ċ	xē	Х
د	dāl	d
Ę	ḍāl	D
ć	dāl	Z
J	rē	r
Ç	ŗē	R
j	zē	Z
ژ	zē	Х
ىىل	sīn	S
ش	šīn	sh
ص	śu'ād	S
ض	du'ād	Z

ط	tō'ē	<u>t</u>
ظ	żō'ē	<u>Z</u>
٤	ain	<u>a</u>
Ė	ğain	G
ف	fē	f
ق	qāf	k
ک	kāf	k
گ	gāf	g
ل	lām	1
٢	mīm	m
ن	nūn	n
J	nungunna	Ν
و	wā'ō	V
٥	chōțī hē	a
ھ	dō chashmī hē	h
¢	hamzah	i
ى	chōțī yē	i
۷	baŗī yē	e

Vowels

Orthography	Name of letter	Transcription
Ó	Zabar	a (initial / middle)
١	Alif	А
١	Punjabi alif	Aa (final)
Ĩ	Alif madd	АА
ò	Zer	i (short)
ای	Alif choTi ye	ii (long)
ó	Pesh	u (short)
أو	Alif pesh vao	U (long)
او	Alif vao	0
اے	Alif baRi ye	e
آ_	Alif zabar baRi ye	E

Aspirates

Orthography	Name of letter	Transcription
به	$b\bar{e}+h\bar{e}$	bh
په	$p\bar{e} + h\bar{e}$	ph
ته	$t\bar{e}$ + $h\bar{e}$	th
ته	$\mathrm{t}\bar{\mathrm{e}}+\mathrm{h}\bar{\mathrm{e}}$	Th
جه	jīm +hē	jh
چە	$c\bar{e} + h\bar{e}$	ch
ده	$d\bar{a}l + h\bar{e}$	dh

ڋ	$d\bar{a}l + h\bar{e}$	Dh
ڑہ	${\rm r}\bar{\rm e}+{\rm h}\bar{\rm e}$	Rh
که	$k\bar{a}f + h\bar{e}$	kh
گە	$g\bar{a}f+h\bar{e}$	gh

MORPHEMIC INVENTORY

Gloss	Meaning
1	First Person
2	Second Person
3	Third Person
DP	Demonstrative Pronoun
Ν	Noun
М	Masculine
F	Feminine
S	Singular
Pl	Plural
M Number	Masculine Number
F Number	Feminine Number
Num	Numerals
Pr	Present
Pr. cont.	Present Continuous Tense
Pr. hab.	Present Habitual Tense
Pst	Past
Pst. cont.	Past Continuous Tense
Imperf	Imperfect Aspect
Perf	Perfect Aspect
Imp	Imperative
Subj	Subjunctive

Fut	Future
Inf	Infinitive
Nomi	Nominative Case
Obli	Oblique Case
Voca	Vocative Case
Abl	Ablative Case
Acc	Accusative Case
Dat	Dative Case
Erg	Ergative Case
Loc	Locative Case
Poss	Possessive
Neg	Negative
Adv	Adverb
Int	Intensive
V.St	Verbal Stem
ANA	Adjective-Noun Agreement
SVA	Subject-Verb Agreement
OVA	Object-Verb Agreement

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CHAPTER 1

1 INTRODUCTION

The phenomenon or mechanism of language acquisition is fundamental to human beings. It contains a long history of observations, investigations, inquiries and analysis but still this issue is controversial (Ellis, 2006). This acquisition is taken as a straight path from "the state of innocence to one of mastery" (Bialystok, 2001) but in reality it is not error free. The false starts, broken phrases, other variations in their speech are the part of the normal language acquisition process. As biological beings they learn language while moving in a society and getting a lot of linguistic input without any special care, attention and teaching and get mastery of their language (Radford, 2004).

This research work presents the normal process of morphosyntactic developmental sequence of children acquiring Urdu and Panjabi as first language or L1. It deals with the basic assumption of how the children represent the morphological and syntactic patterns found in both these languages.

Morphosyntax [(noun), morphosyntactic (adj.)] the mutual relationship of morphology & syntax refers to those grammatical categories which explain both morphological and syntactic properties of words like gender, number, case, tense and aspect marking (Crystal, 2008). In other words morphosyntax not only studies grammatical categories which are expressed through grammatical morphemes or inflection but also the rules that are involved in making them comprehensible language. Grammatical categories can be used broadly as a class like noun and verb etc. and more specifically to those grammatical "features (such as number and case) that share a common set of grammatical properties (Nordquist, 2014)" and Matthew (1991) named these grammatical features "...as morphosyntactic or categories categories specifically."

Although language acquisition process is addressed by different researchers from different aspects but this study deals this process of language acquisition from "pedolinguistic aspects" a term used by Paradis (2004) which is "... the study of language development in children raised bilingually" and "linguistic aspects" which examine "what the grammars of a bilingual individual are like, and grammatical constraints on language mixing" (Paradis, 2004).

Child language acquisition is fraught with many pathological issues related with the speech production like stuttering (the production of a series of short sharp sounds), cluttering (rapid, irregular speech rate, language errors in syntactic or word structure), alalia (misspeaking, a deviation from the normal speech like substitution, addition and deletion), apraxia (a motor speech disorder, a language disorder where the sound or the meanings of the word are deformed to the extent of unintelligibility) (Whitaker, 2007) and disfluency etc. which may affect the verbal fluency. This particular research will be an attempt to help speech pathologists in guiding Urdu and Punjabi bilingual children to cope with these disorders in a better way by finding the sequence of these inflections or morphosyntactic categories in these particular languages.

1.1 Urdu Language

Urdu belongs to the family of Indo-European languages. In the form of language family tree it is: Indo-European \rightarrow Indo-Iranian \rightarrow Indo-Aryan \rightarrow Central Zone \rightarrow Western Hindi \rightarrow Hindustani (Khari Boli) \rightarrow Hindi, Urdu (Lewis, Simons, & Fennig, 2015).

Urdu, the national language of Pakistan and the official language of India is understood by the people living in different parts of the world like Afghanistan, Australia, United State of America, United Kingdom, Germany, Norway, Oman etc. More than 63 million people speak Urdu as a first language not only in Pakistan (including 10,000,000 speakers) but also in five other countries like Bangladesh (250,000 speakers), India (51,500,000 speakers), Mauritius (64,000 speakers), Nepal (175,000 speakers) and South Africa (12,000). While it is the second language of almost 104 million people in different countries of the world (Lewis et al., 2015).

1.1.1 Urdu Dialects

The Urdu languages spoken in Delhi and Lacknow (New Uttar Pradesh), considered as standard forms, were quite similar in grammar but Delhi's Urdu was less Persianized than standard Urdu of Lacknow. Some main dialects of Urdu include 'Dakhni' (a combination of Marathi, Telugu, Persian, Turkish and Arabic) spoken in Deccan area of South India, 'Rekhta' (means scattered or mixed language with Persian) a language of great Urdu poets which is different from common language and 'Modern Vernacular Urdu' (has influence of Khari Boli). The last dialect spoken in Dehli region is called as Pakistani dialect after the migration of Muhajirs in Pakistan and is now spoken mostly in urban areas like Karachi, Lahore, Rawalpindi, Sargodha etc. This Pakistani dialect has got a regional flavor because it has absorbed many words from regional languages like Punjabi, Sindhi, Pashto and Balochi and has become different from Urdu spoken in India (Nauman, 2013; Schmidt, 2007).

1.1.2 The Urdu and Education Policies in Pakistan

Urdu, like English is a language of "wider communication" in Pakistan. It was given the status of "compulsory language" (Rehman, 1998) in the first educational conference in Karachi (held in 27th November, 1947). The committee chaired by Abdul Haq (Baba-e-Urdu) in 1950's included it as a medium of instruction in the Government schools. In 1953 - 54 report, Urdu was added as a compulsory subject. In 1958 Ayub khan's commission on National Education report stated that Urdu should be developed as a national language for linguistic and national unity. In 1964 at B.A. level and in 1967 at M.A. level, the students were given the choice to attempt the paper either in Urdu or in English in Punjab University and in 1960's Urdu became the symbol of Pakistani nationalism (Rehman, 1998). Pakistan Peoples Party (PPP) Government under Zulfiqar Ali Bhutto brought new changes in Pakistani language policy 1972 in the form of new and more Urdu medium schools (Sikandar, 2017). In 1973 Constitution, Article 251 (1) Urdu was given the status of national language of Pakistan. Zia-ul-Haq was a staunch advocate of Urdu language, so during his reign in 1979 education policy, Urdu became not only the language of "Muslim culture" but also "Lingua franca" and "common link language". After Zia-ul-Haq's death in 1988, PPP, Pakistan Muslim League Nawaz Group (PMLN) and Military Government took over Pakistani Government affairs but the language policy remained almost the same (Rehman, 1998). National Education Policy of Nawaz Sharif (1998-2010) also proved a continuation of the previous policies. The working on this policy started in 2005 and documented as "white paper" in 2007 where mother tongue was ignored as a medium of instruction (Sikandar, 2017). It was Chief Justice Jawwad S. Khawaja who after forty two years of Constitution, on 8th September, 2015 ordered for the execution of Urdu as

official language reminding the Government about the Article 251 in line with Article 5 according to which it should be implemented within 15 years. In February, 2017 Lahore High Court issued a verdict for Fedral Public Service Commission that the Central Superior Service Exams (CSS) should be conducted in Urdu but the 18th Constitutional Amendment proved a hindrance in its implementation (Raj, 2017). In Punjab as a short term measures by Punjab Services and General Administration Department, the universities of the province were to use Urdu as official language (Sheikh, 2017) but "there has been a serious lack of commitment by the government towards education of the people and planning of language policy" (Sikandar, 2017).

1.1.3 The National ECE Curriculum Framework for 3 - 5 years old

The National ECE (Early childhood education) for 3 - 5 years policy in Pakistan was introduced with the first education conference in November, 1947 where nursery education was considered important for children. In 2002 National ECE Curriculum was framed according to which language and literacy development for this age includes the familiarity of all the four skills like listening, speaking, reading and writing and when they reach at five years, they be able to express their thoughts clearly, inquire, predict and answer to question, find the difference of Urdu and English languages, their alphabets, basic vocabulary (Jalal, 2002). In 2007 this policy was revised and in 2009 National Education Policy suggested the implementation of this ECE curriculum in primary schools in reality. But till present no fruitful results can be observed from language development point of view as children are moving between two mediums of instruction Urdu and English along with their mother tongue or regional language either it be Punjabi, Sindhi, Balochi, Pushto, Siraiki, Pothohari etc. (Early Childhood Education, 2014).

1.1.4 Social Status of Urdu Language in Pakistan in Context of Children

Urdu "the sweetest and most civilized language of the world" (Ahmed, 2015) has become the first language of most of the Pakistani children (Parekh, 2013). As the language of "bazaar in many big cities" (Mustafa, 2017) the children understand Urdu and consider it the language of communication. It is also a language of print and electronic media that is why many programs are broadcasted in Urdu for children. In Punjab, in middle class Punjabi families, Urdu is preferred over mother tongue (Parekh, 2013). It is the medium of instruction in Government schools at primary level also.

1.2 Punjabi Language

Punjabi, a modern Indo Aryan language has developed through three stages i.e. Old Punjabi (10th - 16th century), Medieval Punjabi (16th - 19th century) and Modern Punjabi (19th century - present) (Bhatia, 1993).

Punjabi is spoken in Punjab province of Pakistan and India. According to 2000 report Western Panjabi is spoken by 60,600,000 people in Pakistan (which raised to 66,225,000 in 2001) while the total speakers round the globe like in India, United Arab Emirates, United Kingdom and Canada are 62,61300 (Lewis et al., 2013). According to 2008 estimation, 76,335,300 native speakers of Punjabi are present in Pakistan which means almost 75% of the whole population. But even with large number of speakers, it does not have any official status and as a medium of education it exists only at B.A. and M.A. level. As a means of communication it is used in every field of Pakistani life. It is the 2nd most spoken language in England and the 4th most spoken language in Canada (Veach & Williamson, 2011).

In Pakistan Punjabi language is spoken in east-central districts of Punjab like Lahore, Gujranwala, Sargodha, Sialkot, Jhelum and Gujarat. Lahore with almost 86% native speakers is considered as the prime Punjabi speaking city and Islamabad with almost 71% of native speakers is the second one (Punjabi and Punjab, 2008).

1.2.1 Punjabi Dialects

On dialect continuum of Punjabi, the dialects are similar to Hindi on one side and Sindhi in Pakistan on the other side (Punjabi-UCLA Language Materials Project: Language Profile, 2014). In Indian states of Haryana, Himachal Pradesh, Jammu and Kashmir and Gariganagar district, it is called Eastern Punjabi and when it is used in the Pakistani Punjab, Khyber Pakhtunkhwa, Sindh and Azad Jammu and Kashmir, it is named as Western Punjabi. Linguistically they are different varieties of the same language. The difference in these dialects is generally of lexicon and phonology, the reason behind is the Persian influence of Pakistani Punjabi and English, Hindi and Sanskrit borrowing in Indian Punjabi (Singh, 2014).

Punjabi is not confined to any territory but for the ease different linguists defined dialects into three main categories which are further subdivided according to the area or region where they are spoken. So, Eastern Punjabi spoken in Indian Punjab contains Maji, Malvi, Doabi and Puadhi while Western Punjabi consists of Multani, Shahpuri, Jhangi, Pothohari and Hindko. The third dialect which is Pahari or Dogri contains Kangri, Bhattiali, Jammuali and Poonchi. Out of more than 25 dialects Majhi is the standard dialect (Singh, 2014).

Pakistani Punjabi is written in Perso Arabic script, called as Shahmukhi script ("from the mouth of the Kings") (Veach & Williamson, 2011; Bhatia, 2008).

1.2.2 The Punjabi and Education Policies in Pakistan

At the time of British rule in the Subcontinent in Punjab, different "madrassas (for Arabic and Islamic education), maktabs (for Persian education), Gurmukhi schools (for Punjabi language in Gurmukhi script and Sikh religious studies) and Patshalas (Sanskrit schools)" (Rammah, 2002) were functioning in Punjab with Punjabi as a medium of education and continued for years but then it was replaced by Urdu for political reasons and Punjabi Muslims educated class very easily accepted Urdu for Punjabi because at that time Urdu was a mark of Muslim identity (Rammah, 2002)

At the time of partition, there were no Urdu speaking Mohajirs in Pakistani area but after partition Urdu speaking Mohajirs settled in Sindh and they got hold of Pakistani state affairs and Punjabis also favored these Mohajirs against Bengalis who were in majority (Shackle, 1970). Even the military and civil bureaucracy, majority of which was belonging to Punjab, for their personal power and gains, ignored their regional identity (Rammah, 2002).

Punjabi represents two ethnic groups (Sikhs and Muslims), so as a result of "reformist movements" and "communal consciousness" it was associated with Sikhs and Urdu with Muslim (Shackle, 1970).Being linked with Sikhs, the Punjabi language was maltreated in Pakistan from the very beginning. Urdu which was declared as the official language in Punjab by the Britishers continued even after the creation of Pakistan although in 1951 native Urdu speakers were only 7.3%, in 1981 the ratio increased to 7.6 % while in 1998 it was 7.53 % (Ayres, 2008).

In Pakistan language represents social class. As English is related to the Elite class, Urdu with middle and lower middle class while Punjabi or any regional language with working class. "Punjabi is truly doubly marginal" (Ayres, 2008). It was excluded even from university subjects. But on the demand of Punjabi League in 1951, it was allowed again as optional university subject. In 1956 Punjabi was not given any

importance. In 1959 Sharif Commission on National Education report suggested to make Urdu as a medium of instruction in Punjab and Balochistan while Pashto and Sindhi till class five and Urdu as a compulsory subject. In 1962 Punjabi was introduced as an optional subject at school level but afterwards it could not get its proper status like Sindhi and Pashto languages (Zaidi, 2010). Although in Constitution Article 251 it is clearly mentioned "Without prejudice to the National language, a Provincial Assembly may by law prescribe measures for the teaching, promotion and use of a provincial language in addition to the national language" and is reduced to "the language of private pleasure" (Rehman, 2004).

In contrast to Urdu, Punjabi has a rich oral literature, folk poetry, stories of romance and satires (Shackle, 1970). Although after independence some literary work in Punjabi especially by Najm Hosain Syed, *Takhut Lahore* (1972) presented a new picture of Punjab. In 1970s Zulfiqar Ali Bhutto (1972 - 1977) patronized "local ethnic identities" and institutions like 'LokVirsa (1974)' and 'Pakistan Panjabi Adabi Board' but Zia-ul-Haq banned all this. In 1986 the World Punjabi Congress headed by Fakhar Zaman, again revived Punjabi language. Next few years Punjabi writers got their work published like *Punjabi Zaban Nahi Mare gi* (1988), *Punjab Ka Maslah: Dipolitisizeshan aur Awami Tahrik Ka Na Chalna* (1988) and *Ao Panjabi Ko Katl Kren* (1992) etc. "These Punjabi activists" had only one demand i.e. the proper status of this language as the other regional languages like Sindhi, Pashto etc. which were included at primary level education (Ayres, 2008).

According to 2001 report comparing 36,750 Sindhi medium schools in Sindh province and 10,731 Pashto medium schools in Khyber Pakhtunkhwa, there is no Punjabi medium school anywhere in Punjab (Rammah, 2002).

Mushtaq Soofi, the current chairman of Punjabi Adabi Board, comments that the constitution of Pakistan allows the provinces to adopt their respective languages as official languages. "Sindh and Khyber Pakhtunkhwa have taken some practical steps in this direction but Punjab and Balochistan remain unmoved still" (Mirza, 2013).

1.2.3 Social Status of Punjabi Language in Pakistan in Context of Children

Sociolinguistically Punjabi is basilect (lower in prestige) between English as acrolect (highest) and Urdu as mesolect (middle). It reflects the attitude of people towards the language which is not inherited but learned in speech communities. Parents scold their children if they try to speak in Punjabi "because speaking Punjabi is considered a mark of crudeness and bad manner". In electronic media for children very few programmes on "Apna Channel" are broadcasted and in print media almost no special efforts are being done for its promotion. Only 2% Punjabis can read and write Punjabi although they can speak it fluently, so it is an oral language. Urdu is called as "correct language, the language of taste and class" while Punjabi as "indecent" or "vulgar language". The reason behind is "the more educated a Punjabi is, the more anti Punjabi and punjabiless he or she becomes" (Zaidi, 2001). Mansoor (1993) laments on the attitude of graduates of Lahore in her research who feel ashamed of to be called as Punjabi speakers and introduce themselves as Urdu speakers. The Punjabi is taught only in Punjab University. There is no research institute which seriously works for Punjabi promotion. If some work is seen, it is individual effort (Zaidi, 2001).

But in spite of all this grave and alarming situation there are people like Amjad Saleem and Mushtaq Soofi who still hope for the best. The former says, "Punjabi as an oral tradition will continue to exist" while the later says, "The language will live" (Mirza, 2013).

1.3 Research Objectives

The research aims at:

- Documenting the normal acquisition process of Urdu and Punjabi morphosyntax by children who are exposed to these languages at early stage of their development.
- 2. Observing their course of morphosyntactic development in both the languages.
- 3. Identifying the similarities and differences in morphosyntactic development of Urdu and Punjabi languages in bilingual children.

1.4 Research Questions

- 1. When and how do children pass through morphosyntactic developmental sequence of agreement in Urdu and Punjabi nouns and verbs?
- 2. How do the simultaneous bilinguals acquire these morphosyntactic categories in either language?

3. To what extent does this particular research follow Constructivists' point of view related with the acquisition of inflectional morphology of these two languages?

1.5 Rationale for the Research

Both qualitative and quantitative methodologies are adopted for this study. At first, transcription of the speech sample gathered from those children having exposure to two languages i.e. Urdu and Punjabi from the beginning is done and then it is observed at what stage different grammatical structures appear in the production of these groups.

Although substantial research has been done on prescriptive grammar of both these languages from linguistic and computational point of view but no detailed study from the acquisition point of view or the descriptive side is found in these two languages. So the present study will contribute to the investigation of bilingual language development and by comparing Urdu and Punjabi morphosyntactic structures, the study will contribute to the knowledge of developmental sequences of the above mentioned languages.

1.6 Scope of the Study

This study is an attempt to observe and analyze the morphosyntactic developmental sequence of Urdu-Punjabi children from Punjabi background. So to find out the answers of the above mentioned questions, the study focuses on the following morphosyntactic categories of Urdu and Punjabi.

1.6.1 Experiment 1 (Noun Acquisition)

a) Picture Description Task

For following catagories of Noun Acquisition Pitcture Description Task is used.

- Gender
 - Masculine
 - Feminine
- o Number
 - Masculine Number
 - Feminine Number
- o Case
 - Case Masculine Singular

- Case Masculine Plural
- Case Feminine Singular
- Case Feminine Plural

1.6.2 Experiment 2 (Verb Acquisition)

a) Picture Description Task

- o Tense & Aspect
 - Present Progressive
 - Present Perfect

b) Interview

- o Tense & Aspect
 - Present Habitual

c) Video Clipping

- o Tense & Aspect
 - Past Progressive
 - Past Habitual
 - Past Perfect

d) Interview Technique

- Infinitive
 - Nominative
 - Oblique

e) Video clipping

- \circ Infinitive
 - Oblique

f) Inerview Technique

- o Imperative Mood
 - Request Form

1.6.3 Experiment 3 (Agreement Acquisition)

a) Live Enactment

- o Adjective-Noun Agreement
 - Case Masculine Singular
 - Case Masculine Plural

- Case Feminine Singular
- Case Feminine Plural

b) Recorded Data

- Subject-Verb Agreement
- Object-Verb Agreement

1.7 Limitations

There are some limitations to the study which are as follows:

- Firstly this research is limited to only Urdu-Punjabi speaking children from Punjabi background in the locality of Lahore and their comprehension and production in these languages is analyzed.
- Secondly only those children are the part of this study who have input of Western Punjabi dialect Majhi, spoken in Lahore region.
- Thirdly only morphosyntactic (not phonological or lexical) development of nouns and verbs and adjective-noun agreement of monolinguals age ranged 2.5
 3.0 and bilinguals age ranged 3.0 6.0 are observed.
- Fourthly the case clitics and vocative case agreement are not the part of the study.
- Lastly due to the limitations of time duration and technical constraints instead of longitudinal study, cross sectional study is preferred.

1.8 Scheme of the Study

Chapter 1 is a general introduction to the objective of this research and the need for conducting this research. As the research is related to Urdu and Punjabi languages that's why brief background of these languages is also included in this chapter. This discussion moves from general to more specific topics like from the dialects related to these languages, the language policies and the attitude of the speakers of these languages. Both the languages are discussed on the same ground most of the time but the differences are also looked at and mentioned wherever necessary. Except that the research questions, the grounds on which this research is based and scope of study is also stated here. Bilingual first language acquisition, different ways of its acquisition and different phenomena related to this acquisition are investigated in Chapter 2. The theoretical frameworks prevailing in this type of study are also discussed here. The
acquisition of these grammatical categories by children of different language combinations, the exposure of these languages to the children, basic morphosyntactic categories of Urdu and Punjabi languages are also presented here. While the research design including the techniques, participants and rules for analysis, is defined in Chapter 3. The next two Chapters 4 and 5 deal with the results and analysis of all these categories by bilingual and monolingual children, while Chapter 6 discusses the different phenomena of errors found in the speech of these children and the last Chapter 7 concludes the whole of the research mentioning the possible areas of further research.

CHAPTER 2

2 LITERATURE REVIEW

2.1 Child Language Acquisition

Language acquisition is a part of physical, social and mental development of a child. While living among people and moving around he makes connections between his cognitive and social life through words (Hickmann, 1986) and intrinsically learns how to use a language structure properly. He understands the world through his experience. In the beginning, he just looks at present and his early language utterances indicate the concept of "now and here" but with the passage of time when he grows linguistically, his experience increases and he creates novel utterances which indicates his creativity and gives voice to his verbal thoughts (Clark, 2013).

Chomsky (1988) expresses this phenomenon of language acquisition by saying:

Language learning is not something that the child does; it is something that happens to the child placed in an appropriate environment, much as the child's body grows and matures in a predetermined way when provided with appropriate nutrition and environmental stimulation.

In other words the two components i.e. his gradual understanding of the world around him and his exposure to that linguistic input which he gets from non-linguistic context (the situation or the interlocutor) and linguistic context (words and phrases) enable him to construct that language properly and systematically (Gathercole, 2007).

Language when called as systematic, it means words with similar meanings are used in similar constructions and children learn this fact steadily. They also learn the proper arrangement and relation of content words like noun, verbs etc. with function words (grammatical morphemes) the way people use that language. This use of "statistical learning strategy" to find out the syntactic regularities from the input that they receive through the observations of what degree different linguistic items co-occur and what is their specific patterns in adult speech, is the integral part of their language learning process (Shulman & Capone, 2010). Along with this awareness "...the goal of the child's language acquisition process is to construct a theory of the language that correctly expresses this grammatical knowledge" (Fodor, 2001).

First language acquisition (L1) is a quick process as compared to second language acquisition (L2) but this does not mean that it is a practice of few days or months. It takes 5 - 6 years and there are strong evidences that if a child is not exposed to any language till 6-7 years of age, he remains unable to acquire it in later years. So the first 5 - 6 years of a child's life are crucial in this respect. Exposure, input or interaction makes him a "competent language user" without any extra effort (Clark, 2013).

During this period of language acquisition, he has to go through different linguistic developmental phases called as "universal stages" with lots of variation in the acquisition rate of the stages. While calling the developmental phases as stages Brown (1973) has said as, "a stage is named...either for a process that is the major new development occurring in that interval or for an exceptionally elaborate development of a process at that stage". This division of language process into different stages helps the researchers in making generalizations. While Well (1985) has defined developmental stage as "a descriptive convenience imposed upon a continuous developmental process". In other words the division of developmental sequence into different levels (phonological, lexical, syntactic and pragmatic) is called a developmental stage. Some stages take less time to develop, others take more time but those who call it "degenerate form of adult language" (Fromkin et al., 2003) are wrong as at every stage the child is observing the rules of that particular grammar. But this fact cannot be denied that there are similarities in the acquisition of both languages. In the words of Fromkin et al., (2003):

Like adults, children have grammatical categories such as NP and VP, rules for building phrase structures and for moving constituents, as well as phonological rules, morphological rules, and semantic rules and they adhere to universal principles such as structure dependency.

But child grammar lacks many functional categories including inflection, complementizer, determiner etc. and these early sentences of a child seem to be like "small clauses in adult language" which are uttered to perform the communicative function only (Meisel, 1990) but this does not mean to name this grammar as artificial

language or grammar because it is different from artificial grammar. In the words of Russell (2004):

A grammar of a language is obviously more than a set of rules for sequencing elements. Natural language grammars have classes (nouns, verbs, adjectives etc.) sub-sentential rule bound grouping of elements (Phrases) and rules of agreement (e.g. in number between subjects and main verbs)...Moreover what is learned by the developing child is not how to differentiate legal from illegal sequences but how to express thoughts...with the grammar of a particular language.

2.1.1 Bilingual Language Acquisition

The infant, from the very beginning, has the ability to express differentiation between two languages. Even at 'fetal stage' his memory starts its operation for language sounds and after birth he can discriminate different sounds and this is the beginning of 'breaking the code' (De Houwer, 2009). Even a child of 4 - 5 months who is exposed to two languages can react differently to different languages even if it is unknown or unheard (Bosch & Sebastian-Galles, 1997). A child who gets input in two different languages from birth can utter language specific babbling even at prelinguistic stage (Maneva & Genesee, 2002).

"Infants possess the requisite neuro-cognitive capacity to differentially represent and use two languages simultaneously from the one word stage onward and probably earlier" (Genesee, 2001).

2.1.2 Different Types of Childhood Bilingual Acquisition

Age of onset determines the type of bilingualism a child is acquiring. If he is exposed to both the languages early in life, he is early or primary bilingual and if he is exposed later, he is successive or secondary bilingual (Albrecht, 2003 - 04). There are different types of childhood bilingualism. A "natural bilingual" type of early, consecutive bilingualism, before adolescence, is named as "infant bilingualism" or "bilingualism as a first language" (BFL) or "ascribed bilingualism" by different language researchers (Beardsmore, 1986). De Hauwer (1990) calls "simultaneous bilingual acquisition" when a child is exposed to two languages every day. In other words he hears both the languages regularly from his birth. While Mc Laughlin (1995)

thinks that if a child acquires two languages at the age of three, he can be considered as "simultaneous bilingual" while "secondary bilingual" or "late successive bilingual" or "sequential childhood bilingual" in case when second language is introduced after three years of a child's age, through formal training or instruction in schools and at some point after he begins to develop first language. In that type of acquisition (pre-school) the main focus is on comprehension and meanings not on form (Baker, 2011). Although the "Cut off of exposure to two languages" ranges from one month of birth to three years but about the age of morphosyntactic development De Houwer (2009) said:

I consider morphosyntactic development in production to be evident once a child growing up bilingually has begun to produce utterances containing at least three clause constituents or two-word utterances containing at least one bound morpheme, whichever comes first.

From memory processing system Weinreich (1953) presents three ways of bilingual acquisition i.e. coordinate, compound and subordinate. Coordinate bilinguals have two different concepts or meanings of synonymous words in both the languages and function like two monolinguals while compound bilinguals have same meanings for two different forms. While in subordinate bilinguals one language is dominant and non-dominate second language gets access through dominant language. While Ervin and Osgood (1954) said that compound bilingual is the speaker who acquires both the languages in his childhood equally. So the differentiation is based on different acquisition context. While Lambert (1969) defined compound bilinguals "as those brought up in a thoroughly bilingual home environment from infancy on, while coordinate were those who had learned the second language at some time after infancy...usually in a setting other than the family".

In Pakistan generally the children have the exposure of two languages from the beginning because of the use of one language at home and the other at school in early years of education, or through media, communication. In Punjab generally Urdu because of national language is understood by almost all children but their home language is Punjabi that is why children become bilingual from the early stages of language development.

2.1.3 Method Choices in Childhood Bilingual Acquisition

Much of the work done on bilingual early acquisition is either single case studies or case studies done on a very few speakers or children and a lot of information can be gathered out of these studies but for reaching a solid or firm conclusion a numerical data consisting of large sample of respondents or speakers is required (Pérez-Vidal, Juan-Garau, & Bel, 2008).

So in the first half of the 20th century keeping diary records was a fashion and Ronjat (1913) and Leopold (1939 - 49) adopted this technique for observing their children's bilingual acquisition. Dromi (1987) while reporting about her daughter's Hebrew lexical development thought that case study methodology is quite suitable for the study of early language development. But due to the shortscomings of case studies where only one observer is present and that's child's parent, there might be the chance of observational errors or subjectivity (Lanza, 2004). Even non-parents case studies like Flecher (1985)'s on English monolingual acquisition, De Houwer (1990)'s Dutch-English bilingual acquisition and Lanza (2004)'s language mixing of Norwegian-English children are also available.

In the 2nd half of the 20th century the use of audio and video recording techniques provided the monographs on bilingual language development because "if a researcher is not the parent, he or she is likely to rely mostly on audio or video recording rather than diary notes, and frequent recording will be required in order to compensate for the researcher's lack of contact with the child" (Deucher & Quay, 2001).

After 1950's the naturalistic methods which included longitudinal case studies, cross sectional case studies or interviews, were combined with production experiments. Through these experiments, the researchers tried to find the change in speaker's behavior with the change of one or two variables. These production experiments proved useful for the systematic study or observation or analysis of L1 and L2 morphology, syntax, semantics and phonology. Except that semi-structured techniques like videos or games were used to get the production of the respondents (Eisenbeiss, 2010).

The recent empirical data supports that whatever the circumstances of acquisition but if bilingual acquisition starts before the completion of first language

i.e. before 5 years of age (sequential bilingualism) the course of language acquisition remains the same like bilingual first language acquisition (Meisel, 2008).

2.1.4 Course of Childhood Bilingual Development

Although childhood bilingual acquisition is quite common round the world yet there are educated people who apprehend that exposure to two or more than two languages can slow down language development of these children and the result may be a mixed or confused exhibition but it is observed that bilingual development is similar to monolingual's (De Hauwer, 1995) and even the development of their grammatical knowledge in each language is not different from monolinguals (Meisel, 2008). The reason behind is that young children can acquire many languages unconsciously and simultaneously. Even the young children who acquire bilingual first language are regarded as better and superior language learners than those who acquire it late. Bialystok (2001) expresses the same views and satisfies the worried parents by telling that children have the capacity to grow bilingually without facing any "trauma" because they have the "special access" and "natural talent" to acquire any language. Although there is a lot of variation in mono or bilingual acquisition, in the way of development of their language but their sequence of language acquisition remains the same and there is a general agreement that the number of languages does not affect their language developmental process (De Houwer, 2009).

When we say that the initial stage of bilingual development is not very different from monolingual first language acquisition, it does not indicate that their course of development will also be the same because of the interference or cross linguistic influence in bilingual acquisition. "Grammatical interdependence" in bilingual acquisition sometimes accelerates or delays the process (Paradis & Genesee, 1996) but it should not be taken as negative impact because it can bring changes or sometimes reorders the developmental process.

2.1.5 Rate of Development of Childhood Bilingual Acquisition

As for as the rate of development in bilingual vs monolinguals is concerned, there is a mixed opinion again. Some researchers have found similar rate of development from babbling to word combination stage, even the language specific development is same in bilingual children without any delay (Paradis, Crago, & Genesee, 2005 / 2006; Paradis, 2010; Pearson & Fernández, 1994) while others find

that bilingualism becomes a hindrance for children in acquiring different aspects of language because in most of the cases they do not get equal input in both of their languages. That's why when bilinguals are compared with monolinguals in their early morphosyntactic development, they are slower but when they are compared in their dominant language, they are equal to their counterparts (Paradis, Tremblay & Crago, 2008; Gathercole 2002a, 2002b, 2007; Nicoladis, Palmer, & Marentette, 2007; Wiechmann, Steinfeld, & Kerz, 2013). So bilingual language development is of different rate in bilingual children (De houwer, 2009).

In grammar acquisition bilingual children use "bilingual bootstrapping" (Gawlitack-Maiwald & Tracy, 1996) as strategy to "temporary pooling of resources" (Gawlitack-Maiwald & Tracy, 1996) which means that if bilingual children acquire both the languages with different rate, so the dominant or more advance system triggers the development of underdeveloped language. As the bilingual child "temporarily using his / her expertise in one language to solve problems in the other language", so this delay gives the idea of two interdependent grammars (Gawlitack-Maiwald & Tracy, 1996) and the result may be cross-linguistic influence.

2.1.6 Crosslinguistic Influence in Childhood Bilingual Acquisition

'Crosslinguistic influence' is used for transfer, interference, language mixing, code switching and contrastive analysis in the bilingual speaker's two languages. The linguists who are in favor of single system or unitary hypothesis consider this transfer or mixing as a failure on the part of the bilinguals for not using two separate systems. While the proponents of dual system hypothesis call this mixing as "inappropriate language" not random but take it normal like adult mixing which declines with the passage of time (Pérez-Vidal, Juan-Garau, & Bel, 2008). Deuchar and Quay (2001) relate this code switching or language mixing to "language proficiency" by saying that if an early bilingual child mixes codes it is because of " a gap in lexical resources that is, the child uses a word from an inappropriate language in her vocabulary". While Toribio (2004) argues that code switching in early bilingual children is systematic and rule governed by saying:

Intra-sentential code switching is not random mixture of two flawed systems; rather it is rule-governed and systematic, demonstrating the operation of underlying grammatical restrictions. Proficient bilinguals may be shown to exhibit a shared knowledge of what constitutes appropriate intra-sentential code switching.

Literature present on early code switching indicates that children choose language according to the addressee very early even at the age of two but structural constraints create hurdles for some time in intra-sentence code switching, even till two and a half years of age they do not try to violate these grammatical constraints which indicates that they at this stage have an approach to separate grammatical systems (Meisel, 2008).

This mixing which is the "co occurrence of the elements from two or more languages in "A SINGLE LANGUAGE" can be at phonological, morphological, syntactic, lexical, phrasal or pragmatic level (Genesee, 1989). As the identification of phonological and syntactic mixing is a difficult job so a comparatively less research is present in these areas. Bilingual children mix or transfer codes from simple structured language to more complex language (Bailystok, 2001). Similarly many linguists like Rodlinger & Park (1980) have observed that the children who get input in both the languages freely and interchangeably mix more than those who get input from elders separately and during this process they commit errors. In the words of Skutnabb-Kangas (1981):

The mistakes both children and adults make in syntax and morphology when they learn a foreign language largely resemble the mistakes which a young child will make when it learns the same language as its first language. But it is equally clear that even in the growing acquisition of grammar, there are number of mistakes, not shared by first language learners and second language learners.

But due to a great variation in the factors involved in language mixing and the rate of language mixing, the reasons cannot be generalized (Pérez-Vidal, Juan-Garau, & Bel, 2008) as it can be different from study to study. This mixing is observed more in early stages of acquisition which is overcome with the passage of time and this decline in the rate of mixing is not because the children are following dual system or separate language system but because they are developing more complete linguistic items of each language (Genesee, 1989).

Early bilingual children "need to pay extra attention to what the speakers intend to say, since the variation in the different words they hear is so much greater in bilingual setting" but it creates no significant difference in their overall language development (De Hauwer, 2009). However the competency, fluency and proficiency of a child in both the languages depend on number of factors like prestige, cultural pressure, attitude towards that language use in a society etc. That's why instead of balanced bilingualism, one language dominates the other (Clark, 2013).

2.1.7 Dominance of one Language over other in Bilingual Children

An attitude towards certain language plays a vital role in its acquisition. The positive attitude helps the children to acquire second language while negative attitude stops children to speak (Albrecht, 2003 - 04). Generally it is found that bilingual children are more progressive in one of their language than the other. In every language at the first stage vocabulary words performing social function are comparatively greater in number as compared to verbs but with an increase in lexicon, these social function words and nouns decrease and verbs increase in the grammatical development in each language (Hoff, 2013). Vihman (1985) observing his son, Raivo's simultaneous bilingualism found that due to the greater exposure of Estonian at the beginning Raivo's dominant language was Estonian in word order and morphology as compared to English, although linguistically (in translation equivalents) he was equal in both the languages. Again the greater amount of exposure and communication needs are the main reason for dominance in one language (Grosjean, 1982). In recent literature this dominance is defined by different linguists differently like Petersen (1988) calling it a "word internal code switching" has said:

"Grammatical morphemes of the dominant language may co-occur with lexical morphemes of either the dominant or the non dominant language".

And the same dominance was observed by Vihman (1985) in Raivo's speech where he mixed English function words with Estonian nouns.

2.2 Theoretical Frameworks for Childhood Language Acquisition

To access bilingual mind directly is impossible for the researchers that is why whatever comes related with this issue is generally based on observations, but "the bilingual brain is still very much terra incognita" (Grosjean, 1982). For solving this mystery of language acquisition, substantial research has been done by various researchers using different approaches and paradigms. These theoretical approaches and research paradigms have tried to come to some logical outcome through their assumptions and solution but there are many areas in this regard which are still under observation because human language or grammar is a unique phenomenon which consists of abstract or internalized system of knowledge, rules, represented through infinite set of utterances (Montrul, 2004).

Each language has a unique combination of grammatical categories to express grammatical information through inflection and lexical information through separate lexical items (Santos, 2008; Tallerman, 2015) and this variation causes vitality and meanings to human languages.

For the last sixty years, the child acquisition of these grammatical categories has been the interest of researchers from almost all language families (Clark, 2001). De Houwer (1999) reviewing different aspects of bilingual first language acquisition since 1985 mentioned that out of 64, 35 research articles were on morphosyntax or on grammatical categories and the remaining 29 were on other aspects of language acquisition.

2.2.1 Generativism

Generally two frameworks i.e. Generativism and Constructivism are much researched from this point of view. Generativists always relate speech with "rulegoverned activity" (Antal, 1988) and these principle / rule based generativists take grammar (including syntax, inflectional morphology and in a few approaches phonology also) as a series of combination of rules which "...express structural relations among the sentences..." (Chomsky, 1957) and when a child utters a sentence, he is recovering only those lexical items which are possible in a structural relationship of that language and he has this knowledge of built-in universal linguistic principles in the form of Universal Grammar (UG) which provides the whole range of syntactic, morphological, phonological and semantic categories (Chomsky, 1957, 1965, 1981).

Parameter Theory of Hyams (1986) modifies Generative Grammar in a sense that the child's innate knowledge contains general principles present in every language and parameters which he has to set during acquisition process where other syntactic elements appear automatically and at the same time through input instead of composition and analysis of set of grammatical rules discussed in Chomsky (1965) *Aspects of the Theory of Syntax.* In other words Universal Grammar (UG) includes the knowledge of general traits of grammar of human languages and the way the specific grammar of a particular language is deduced by the child in acquisition process (Higginbotham, 1982), so "to learn a language...then means to operate a number of choices, selecting within a predetermined class of possibilities" (Rizzi, 1989).

This framework takes the acquisition of grammatical categories on the same ground as of syntax. The rules present in UG help children to construct the inflection system of any language by observing the presence and absence of marking. According to them children start using inflections very productively and creatively the moment they acquire these inflections (Ambridge & Lieven, 2011; Rowland, 2013).

2.2.2 Usage Based Constructivism

While in usage based constructivist framework (Langacker, 1987; Bybee, 1998; Tomasello, 2000, 2003, 2006, 2009), the focus is on the construction instead of rule based grammatical items combined in the process of speech. Rules in this approach have secondary importance and they are based on "general cognitive abilities" instead of innate knowledge of grammar (Baerman, 2015). They provide the other possibilities like "lexically specific constructions" also (Ambridge & Lieven, 2011).

This approach is called constructivist (usage based) because children construct their language on the basis of language use in reality and the end point is abstract grammar that's why it is sometimes called as emergenist approach (Lieven & Brandt, 2011). It assumes that the initial point of acquisition is utterance not word or morpheme which is taken as a basic unit out of which children extract "lexically specific morphological schemas" (Ambridge & Lieven, 2011). So in the beginning through "unanalyzed forms" without any distinction of stem and inflection or case marking, children make generalization of commonalities (inflections or suffixes) in these utterances and with the process of repetition, they discover that these utterances contain some inconsistent slots and consistent frame patterns (Tomasello, 2000, 2003, 2009; Rowland, 2013) and for children speech is a matter of pattern recognition which is generalized to other elements (Tomasello, 2003). During this process of pattern detection, it is possible for them to create a formal rule without any innate knowledge on the basis of generalizations or association with the exemplars (Ambridge & Lieven, 2011; Tomasello, 2003). They add new components in these slots through "cuts and pastes" and use them productively (Tomasello, 2006; Rowland, 2013). Later on, they internalize or conceptualize these schemas to construct morphological constructions which are acceptable in adult world and this is how they master the entire system of inflection through analogies or associations with those items which are stored in memory in a "piecemeal fashion" (Tomasello, 2006; Ambridge & Lieven, 2011).

In this process the most frequently occurring inflections or suffixes and auxiliaries are acquired earlier with low rate of errors by the children than the other way round (Rowland, 2013).

The errors in the children' speech show their creativity and productivity where they pick a structure or feature from their limited exposure and use it to new construction which is not present in adult speech, in other words "the application of a morphological rule to an unknown stem" (Boerman, 2015) by children. Almost all children between the ends of 2 - 3 years overgeneralize rules and continue till school years. They commit the errors of irregular stems along with irregular past tense, plural, adjective and pronoun also. They scrutinize inflection from adult talk and eagerly use them in their conversation. The errors also indicate the "reorganization" of pattern which they extract from language available to them and apply it in every direction. Most of the time they unconsciously observe the rule behind certain words which are slightly different, and then extract it and relate it to the meaning and use it freely without any distinction of regular and irregular. The more the children hear construction, the more it will become the part of the memory and the more it will be retrieved correctly.

Bilingual children sometime overgeneralize a rule of one language into another. The rule application is to a degree guided by the innate capacity (Pinker, 1999). This rule based approach of inflection acquisition is further expressed by the generativists as Dual Mechanism Models (Clahsen, 1999; Pinker & Ulman, 2002) taking the acquisition of regular (most frequent forms) and irregular (less frequent) as independent processes where the acquisition of regular inflection is related with the application of one default grammatical rule and the irregular inflection is memory based. While usage based approach (Bybee, 1985, 2001; Bybee & Slobin, 1982; Tomasello, 2003) and connectionists (McClelland & Patterson, 2002) take the acquisition of all types of inflection with association of phonological and semantic features favoring the second main model i.e. Single Mechanism or Network Model of Bybee (1985, 1995) where the child can retrieve the whole inflected form if it is more frequent through processing and if it is infrequent then through an access to a stem and addition of affix in the form of schema (Bybee, 2001).

A "schema is a statement that describes the phonological properties of a morphological class...." (Krajewski, Theakston, Lieven, & Tomasello, 2011). The children in the beginning just imitate the adults and pick correct forms from their language. With the passage of time they create schemas or connection based on similar patterns on limited scale. Then they extend their use productively in the form of abstract schemas with the help of phonological, semantic features. When children fit new items into these patterns through association, sometime they create novel inflections which in adult world can be considered as an error but shows their morphological productivity (Krajewski, Theakston, Lieven, & Tomasello, 2011). In inflection acquisition children either adopt product-oriented schemas related with the formation of new forms out of already existing forms of the same morphological class or source-oriented schemas which are related with the composition of a form with its affix and make generalizations about them (Bybee & Slobin, 1982).

A number of researchers studying children acquiring different language combinations like English-Spanish (Fantini, 1985); German-French (Miesel, 1990); French-English (Paradis & Genesee, 1996); Estonian-English (Vihman, 1998); Norwegian-English (Lanza, 2004); Inuktitut-English (Zwanziger, Allen, & Genesee, 2005) found that related with language specific properties of each language, bilingual children acquire them quickly and early as compared to monolinguals and their rate of lexical and morphosyntactic development is also same (De Houwer, 2009; Deuchar & Quay, 2001).

2.3 The Acquisition of Grammatical Categories

For the acquisition of morphology the process of exploring the form and allotting the meaning to that form is required by the child and the more the forms of some of the affixes complex, the more time and attention will he take in acquisition. But at the same time the rich inflectional or synthetic languages help him in the early use of inflection in his speech (Clark, 2001; Stoll, 2015). So inflection acquisition is infact a multi-dimensional task where children learn their grammatical function also as one inflection affects all the constituents of a sentence (Clark, 2001). Frequency with which an inflection appears in number of type in the input also plays a positive role in the early acquisition of some of the inflections than others (Penke, 2012). The acquisition of parts of speech is related to "language specific structural factors also" (Stoll, 2015). The languages which have one inflection for one form and meaning are acquired earlier than those inflections which fall in multifunctional categories (Brown, 1973). And this "Categorical syntactic knowledge" generally takes 2 - 3 years to appear in children's language because in early stages of development these syntactic constructions are not very productive. Due to limited linguistic exposure at that young age, their language is not based on abstract schemas (Tomasello, 2000). That's why Radford (1990) divides child grammatical development into three stages i.e.

- Pre or A Categorical Stage which is without functional categories.
- Categorical Stage where functional categories like determiner, inflection, complimentizer, case markers are again missing between one
 two and a half years of age when children use nominal without any case.
- Functional Stage where the acquisition of inflections, along with other functional categories can be observed.

2.3.1 The Acquisition of Noun Morphosyntactic or Grammatical Categories

A brief description of the Acquisition of Noun Morphosyntactic or Grammatical Categories is discussed as follows:

2.3.1.1 Gender Acquisition

The acquisition of grammatical gender has been observed by many researchers especially of synthetic languages like the Indo-European languages of Romance, Germanic, Slavic and Indo Iranian families (Rodina & Westergaard, 2015). The complexity of language also affects the acquisition of gender system of that language as when the children are exposed to a rich morphological language where one morphological marker influences the other categories, they acquire the gender difference late (Savickiene & Kaledaite, 2007). But in languages where the same gender suffix is used for noun and its modifier that gender system is acquired early by children (Clark, 2001).

In a study on the acquisition of gender assignment and agreement within the nominal phrase of Spanish-German bilingual children aged 1;2 - 2;3, a smooth development of gender acquisition of bilingual children without any influence of the difference of gender assignment in both languages can be observed (Kuchenbrandt, 2005).

In another acquisition data of French -German bilingual children before three, gender and number marking is used by them parallel, not one after the other while their errors indicate the difficulty in the use of plural marking (Muller, 2000).

Similarly the findings of another study of monolingual German children and French-German, Italian-German, Spanish-German and Italian-French bilinguals age ranging between 2;2 - 4;0, show that the age of respondents till 2;6 is seemed to be critical for gender acquisition but overall the Italians, Spanish show more accuracy in their acquisition of gender than French while the German bilinguals show a delay in the acquisition of gender system because it is also related with the number and case marking (Eichler, Jansen, & Müller, 2013).

Along with the simplicity of language, the transparency and exposure at home also play a crucial role in acquisition. Sufficient input accelerates gender acquisition in bilingual children than their age of onset and it is observed in a study of gender acquisition among Norwegian-Russian bilinguals age ranged 4;1 - 7;11 (Rodina & Westergaard, 2015). Similarly Polish-German bilinguals age 2;11 - 6;5 show the late acquisition of gender marking. Even till six years of age they are in the process of acquisition. Along with the morphophonological and semantic clues children also overuse gender marking (Brehmer & Rothweiler, 2012). Native Urdu / Hindi speakers acquire gender distinction through "implicit knowledge" of grammatical judgement while the adjective-noun agreement or pairing also helps in the acquisition of gender system (Ranjan, 2013).

2.3.1.2 Number Acquisition

Because of the plural markedness in most of the languages, a lot of research is done on plural acquisition (Stoll, 2015). Number marking acquisition varies among children and across languages as it is acquired late in Arabic speaking children (Abdullah, Aljenaie & Mahfoudhi, 2013) but is used quite early by English children (Ettlinger & Zapf, 2011). The late acquisition of plural is sometime related with the avoidance of the use of plurals by children also (Marrero & Aguirre, 2003). Children during 2.5 - 3.5 years of age mark plurals in their spontaneous speech (Brown, 1973; Jolly & Plunkett, 2008). Again there is a difference in the acquisition of singular and plural numbers. The singular numbers are acquired earlier than plural numbers. Children first express number concept through modifiers and numerals then they start the plural suffixes (Clark, 2001; Koehn, 1994).

The acquisition of plural suffix is a gradual process where familiarity and frequency of plural use boost up the acquisition process. Plural inflections of nouns are acquired earlier than verb number inflection (Clark, 2001). But the opposite results can be observed in a study on plural acquisition where three years old children respond English noun plurality and they use verb and quantifier plural markers first then on noun (Kouider, Halberda, Wood, & Carey, 2006).

Clark (2001) describing the pattern of inflection acquisition of plural says that it starts with no inflection or bare form then partial inflection then inflection with sometime over regularization and the last step is the acquisition of irregular forms. The same results can be observed in bilingual plural marking also where in a longitudinal study of a German-French bilingual child aged 1;5 - 5;0 the observations reveal that in the first stage the child uses limited forms of plural, at the age of 2;6 - 2;7 he uses number marking for the first time, till age 3.5 there is no use of over generalized forms while from age 3;6 onwards over generalized errors appear showing the productivity on the child part. The difference in French and German number acquisition is that the child starts marking on article in French first while in German marking on noun appears first (Koehn,1994).

Another longitudinal study of a Persian-English bilingual child aged 16;0 - 23;0 months show the rapid use of English plurals at the age of 23 months as compared to Persian plurals. The reason may be the ease of the language along with the greater exposure because plural marking in English is overt but not in Persian (Keshavarz, 2007). The "U shaped developmental curve" (Cazden, 1968) of children plural marking has also been observed by many researchers where children first imitate correct inflection then over generalize it to the forms which they have not used before and in the final stage they internalize the correct form of inflection like their elders and there is a variation of age in the appearance of these stages in children (Cazden, 1968). The

acquisition of number and case marking is said to be acquired by children at the same time (Abraham, Stark & Leiss, 2007).

2.3.1.3 Case Acquisition

The inflectional morphology of the language also affects the acquisition of case system by the children. Those who are exposed to agglutinative languages with regular and systematic inflection (suffix case marking) like Turkish, acquire case earlier and easier in between 1.0 - 3.0 years of age as compared to synthetic languages (Ruigendijk, 2015; Armon-Lotem, De Jong & Meir, 2015). In monolingual studies like the longitudinal study of a Greek child age ranged 1;7 - 2;8 the results show that the case marking appears at the age of 1;11 and he also acquires nominative case earlier than the other cases (Marinis, 2003).

Russian children aged 2;1 - 2;7 and 1;6 - 2;0 use morphological case markers from the very beginning but differently from adults with nominative case more frequently (Babyonyshev, 1993). Similarly Polish speaking children are productive in the use of case inflection even at the age of two (Dabrowska & Szczerbinski, 2006).

In Hindi language also the children of 3;5 - 6;0 years have learnt nominative case without any error (Eisenbeiss, Kidwai, & Pareek, 2015). In another study of Malayalam speaking 3;0 - 8;0 years old children, the elder group shows better use of cases in speech which indicates the importance of age factor in the better acquisition of case marking but one thing can be observed that the nominative case is acquired by all the children regardless of age (Sreelakshmi, Mohan & Kumaraswamy, 2015).

So in languages where case system is related with gender and number inflection children have to face multiple affixes to acquire cases and they first acquire singular cases then plural cases like number acquisition (Clark, 2001).

2.3.2 The Acquisition of Verb Morphosyntactic Categories

In child language acquisition, the importance of verbs cannot be denied. "Verbs are linguistic symbols used to designate events that in many cases are highly complex: one or more entities undergoing one or more changes of state" (Tomasello, 1992). Verbs play a major role for proper sentence structure or construction that is why researchers have paid much attention to the process of how children combine their words in the first place and how this acquisition of verbs leads to the acquisition of complement clauses and then to the complex sentences (Bloom, 1981). With verb placement the child also learns the order of his language either it is subject-verb-object (SVO) like English or subject-object-verb (SOV) structure like Urdu and Punjabi.

It is observed that English speaking two years old toddlers omit subject or noun phrase in their utterances more frequently and their general phrases contain verb-object structure and in their speech mostly those verbs are used more which are present in their input when they increase their lexicon and its combination pattern in speech. So there is a strong connection between vocabulary acquisition and grammar acquisition. In the third year, children use 'syntactic bootstrapping' which is "the ability to use the construction in which a novel verb is used to make inferences about the possible meaning of the verb" (Shulman & Capone, 2010). Children cannot avoid "verb specific and construction specific" use either in naturalistic or experimental environment before they reach the age of three (Ramirez, 1985).

The verbs which children learn and use at initial stages are responsible for shaping their early grammatical competence which seems to be ungrammatical in the early utterances but with the passage of time is overcome by children and their whole grammatical competence depends on the "verb-argument structure and syntactic marking of arguments and argument categories" (Tomasello, 1992) and the end result is their future adult-like grammatical competence.

In adult language, verbs are of two types, action verbs called as functional, which perform the function of predicates indicating an "action or state or change of state" and the second type is dative, sometimes called as notional, based on semantics, involving a process. But in children this verb use is different from adults' use. It is a long and continuous process in grammar acquisition and is also different from other acquisitions like nouns. About children's verb acquisition Tomasello (1992) says:

First, the concepts underlying early verbs are not static and permanent but dynamic and transient. They are events that may be construed either as actions or as changes of state. Second, children do not always learn their early verbs by mapping them onto ongoing events in their perceptual world ostensively. Rather, they use social-pragmatic cues and abilities of cultural learning to determine the adult's intended reference in various ways. That is why according to usage based approach, the early acquisition of verb morphology is "concrete and item based", non productive. The child acquires it gradually (Paradis, Nicoladis, Crago, & Genesee, 2010). Age three is critical for verb specific constructions by the child when he moves towards more abstract categories (Tomasello, 2000).

2.3.2.1 Tense and Aspect Acquisition

Children use tenses to relate the past events in present form (Gulzow, 2013). While they use progressive or imperfective morphology to express atelic, activity based verbs and perfective aspect morphology or past tense for telic verbs (Li, Mahar, Newmark, & Hurley, 2001).Bickerton (1981) claims that "children encode punctuality rather than tense when they use past morphology". In verb morphology acquisition children attach past with perfective (Shirai & Andersen, 1995). Some of the researchers consider this variation of simplification of aspectual system as incomplete acquisition (Miller & Cuza, 2013).

According to some of the researchers, bilinguals feel difficulty in the acquisition of tense and aspect verb morphology (Miller & Cuza, 2013). But in a study on the acquisition of past tense marking by 25 French-English bilingual children and 12 English monolinguals age ranged 4;0 - 5;5, the bilinguals' acquisition of French and English past tenses in pattern, sequence and rate was the same in their dominant language as of monolinguals. Even bilingual children started using tense marking before this age (Paradis, Nicoladis & Crago, 2007). The acquisition rate can be accelerated and delayed by the "distributional properties of morphosyntactic structures and bilingual learning" (Lieven & Tomasello, 2008). Children acquire morphological schemas through generalization and these schemas are separate for inflection and content words (Lieven & Tomasello, 2008).

In another pilot study on the acquisition of Spanish present perfect and Preterit tenses by Spanish-English bilingual children aged 6;0 and 3;10, the result revealed that the elder child used preterit tense more as compared to present perfect due to the greater influence of English while the younger child used both in equal proportion (LaMontagne, 2011).

Scottish-English bilingual children preferred the use of present perfect than the simple past forms (Gathercole, 1986). Another English-Italian bilingual child aged 1;10

- 3;01 used English present tense and imperfect past tense earlier than past forms while in Italian, tense and aspect morphology appeared at the same time. In both these languages the child used "slow and gradual verb-specific learning" (Serratrice, 2001) and before age three the child used limited construction and productivity and creativity appeared after three (Serratrice, 2001).

In another study of 25 French-English simultaneous bilinguals aged 4;0 - 5;5 and 12 French monolinguals, the difference in the acquisition of past tense in children's dominant language can be observed before four years and that is for a time being because bilingual children generally develop their dominant language before entering the school (Paradis, Niciladis, & Crego, 2007).

Three English-Norwegian bilinguals age ranged 7;9, 5;9, 3;8 and Norwegian monolinguals aged 7;10, 9;6 showed the similar developmental sequence in their language. In constructions where they are not sure they used present tense in lieu of past tense and adopted simplest constructions most of the time (Jensvoll, 2003).

The use of the present, preterite, infinitive, imperatives and to some extent progressive and future inflection could be observed in 20 months old Spanish-English bilingual children. Spanish verb morphology due to complexity takes time as children use particular type of constructions with particular inflections in early stages (Weiss, 2012). Hammar (2010) discussed the same point that in early stages children used highly frequent past forms in restricted structures. 3;0 - 3;6 is the time period when children start the frequent use of regular past tense while after some time at around 4;6 they use it in most perfect manner.

Similarly another study on the emergence of tense and aspect markers in Indonesian-Italian bilingual child aged 8 months - 6 years present in database reveals that due to the rich inflection of Italian verb morphology as compared to Indonesian tense aspect system, the bilingual child could not master the Italian tense aspect system till age 4;0. The sequence of acquisition of morphosyntactic categories was that in Italian language past participles appeared first at the age of 2;2 then present progressive and perfect at the age of 3;4, and imperfect tense at the age of 4;11, while in Indonesian language resultative verbs and perfective aspect markers appeared first at the age of 1;10, 2;2. The period of 2;10 was suitable for aspect markers acquisition by the child and during this period at 2;6, imperfective aspect markers also appeared in his speech.

After this age mixed utterances appeared in his speech. The pattern of his Indonesian and the Italian verbal morphology was same as of monolinguals' in both the languages but there was a difference of time of acquisition with Italian markers appearing late. The aspect was acquired earlier than tense by this child also in both the languages and he mastered the abstract verb morphology at the age of 5.0 (Soriente, 2014).

In another study of Russian-Hebrew bilingual children aged 3;6 - 5;0, the bilinguals used difficult utterances as compared to monolingual children and had higher error rate in verb production where they used perfective and imperfective marker in inappropriate way with increased rate of imperfective for perfective markers and in Russian language they made more tense and aspect errors and even used novel forms which were not present in that language as compared to Hebrew. They could not acquire verbal system fully by the end of the study which indicates that verbal system is a gradual process (Gagarina, Armon-Lotem, & Gupol, 2007).

Another study on the acquisition of perfective, imperfective aspect by Greek-English bilingual children revealed that these children acquired perfective aspect earlier while in imperfective aspect, habitual imperfective aspect was acquired late as compared to continuous aspect and most of their acquisition was related with the input which they received and the vocabulary which they used (Dosi, Papadopouluo & Tsimpli, 2016).

The importance of exposure rate at home and type and token frequency cannot be ignored in the production accuracy of bilingual children. In a study of 23 French-English bilinguals with mean age 4;10 and 21 French monolinguals with mean age 4;9, the age sensitive for the sufficient input in both the languages was 4.0 - 5.0 and bilinguals developed like monolinguals in their dominant language. While at the age of three, the difference between the lingusitc developments was greater. Similarly the "shared semantic features" for the morphological marking also accelerated the bilingual children's acquisition (Paradis, Nicoladis, Crego, & Genesee, 2010).

Except input there is a strong correlation between the production rate and age of the children as the elder respondents responded well in a study on Spanish-English bilingual children aged 6;3 - 10;10 (Miller & Cuza, 2013).

In short the data of previous researches reveals that habitual, present, past tense, copula and auxiliary are those grammatical morphemes which mark prominent role in tense and verb agreement and they are acquired later as compared to " nominal morpheme plural (-s) and the aspectual verbal morpheme (-ing) (Brown, 1973; De Villiers & De Villiers, 1973; Paradis, 2010).

2.3.2.2 Infinitive and Imperative Acquisition

The study of infinitive acquisition by the Indonesian-Italian child revealed that he produced infinitive form of verb before the tense marker (Soriente, 2014). Along with Infinitive the studies reveal that children acquire imperative forms earlier than any other verb form even at the pre-morphological stage at the age of 1;4 - 1;5 while Romance- speaking children over-generalize these forms at the age of 2;0 - 2;4 (Moyna, 2009).

Another study of English-Cantonese bilingual children revealed the absence of polite expression by male respondents while female respondent used it infrequently. This difficulty in the acquisition of polite imperatives was related with the complexity of structure and social and pragmatic use (Leung, 2000).

Similarly another study of 17 German-English bilingual children age ranged 1;8 - 10;17 suggested the importance of syntactic complexity and the degree of directness in the acquisition of request form in these bilinguals (Boning, 2016).

2.3.3 The Acquisition of Agreement

Agreement is a "feature sharing of two elements which stand in a specific structural relation, typically in a specifier-head relation" (Meisel & Ezeizabarrena, 1996). A brief description of the agreement acquisition is discussed as follows:

2.3.3.1 Adjective-Noun Agreement Acquisition

Children take 3 - 4 years in its acquisition due to low type and token frequency of production of adjective-noun agreement. The study of adjective-nominal agreement among nine bilingual children acquiring German and a Romance Language either it is French or Spanish since birth indicated that French-German bilinguals acquired this agreement late as compared to Spanish-German bilingual group and more agreement errors were observed in pronominal adjective placement instead of post nominal one (Eichler & Gill, 2013). Bilingual children mix NPs where the determiners from one language can be attached to the noun of the other language but surprisingly with correct agreement which is systematic not random.

In a study of three German-English bilingual children age ranged 2;03 - 3;10, the result revealed that the mixing of NPs indicated that children were in the developmental stage of assimilating the two systems instead of mixing them (Jorschick, Quick, Glasser, Lieven, & Tomasello, 2011).

In another study, German-Italian bilingual children also mixed NPs with German, a more complex language, as compared to Italian language (Cantone & Muller, 2008). In another study on noun-adjective gender agreement between Russian bilingual children aged 4;0 - 5;0 with second different language background such as English, Finish, German and Hebrew and their monolinguals aged 3.0 - 4.0 and 4.0 - 5.0, the bilinguals followed the same developmental sequence as of monolingual agreement and the bilinguals whose language had overt grammatical gender, it assisted them in the earlier and quick acquisition of noun-adjective agreement (Schwartz, Minkov, Dieser, Protassova, Moin, & Polinsky, 2015).

The grammatical similarity of the languages also play a role in the acquisition process among bilingual children as the results of another study of 12 bilingual French-German, Italian-German and Spanish-German aged 1;6 - 5;0 indicated that the similarity of both the languages at surface level initiated these children to produce mix utterances. So there is a direct relationship in the grammars of both the languages and the rate of code switching or mixing among bilingual children (Gil, Eichler, Jansen, Patuto, & Muller, 2012).

2.3.3.2 Subject and Object-Verb Agreement Acquisition

Generally the children acquire subject agreement with ease. The data on Brazilian child aged 3;02 - 3;04 showed that the error rate was low and he applied the frequent inflections in a perfect manner but the acquisition of S-V-A as a gradual one (Rubino & Pine, 1998). The result of a study of English-Italian bilingual child aged 1;10 - 3;01 showed no subject agreement errors throughout his data (Serratrice, 2001).

The universal order of the acquisition of agreement type among children as discussed by Deen (2004) is that they acquire subject before object and object before indirect object agreement and there are languages like Basque where children follow

the same sequence but in languages like Swahili children acquire object agreement simultaneously along with subject agreement. The reason might be the complexity of Basque language agreement as compared to Swahili language because in the former language different morphological forms of person, number and case can be observed. So the importance of morphological differences of the languages in agreement acquisition cannot be denied.

In another study on agreement acquisition by Basque-Spanish bilingual children and monolingual Basque child aged 1;6 - 5;3, the children acquired the universal order of agreement acquisition and object-verb agreement appeared after 4 - 5 months of subject agreement acquisition. Here the reason for this delay might be the "headcomplement relation" (Meisel & Ezeizabarrena, 1996) of object agreement in that language instead of specifier-head relationship (Meisel & Ezeizabarrena, 1996).

2.4 Overview of Urdu and Punjabi Morphosyntax

2.4.1 Phonetic Inventory of Urdu Language

There are 67 phonemes in the phonetic inventory of Urdu: Forty four consonants, seven long oral vowels, three medial oral (Majhul) vowels, three short oral vowels, seven long nasal vowels and three short nasal vowels. (www.cle.org.pk).

i. Non	Aspirated C	onsonants (2	28)			
[b] ب	[p] پ	[ţ] ت،ط	[t] ٹ	[s] ث،س،ص	ट् [क्र]	₹ [∯]
۰٬۲ [h]	ċ[x]	- [ǧ]	[þ] ڈ	[z] ذ،ز ،ض،ظ	[r] ر	[]] ڈ
[3] ڑ	[∫] ش	[?]ع	[٢] غ	[f] ف	[q] ق	[k] ک
[g]گ	[1] ل	[m] م	[n] ن	[ŋ] ن	[v] و	[j] ی
ii. Aspir	rated Consol	nants (16)				
bʰ] بھ	[p ^h] پھ	ه [ț ^h] ته] جه [tʰ] ٹے	[tʃʰ] جه [tʃʰ]	[d̯ʰ] دھ	[dʰ] ڏھ
r ^h] رھ	[^h]] ڑھ	کھ [k ^h] کھ	له [g ^h]	$[l^h] \clubsuit [m^h]$	[n ^h] نه	[j ^h] يھ
iii. Oral	Vowels (13)					
^j [a:]	[I:] اِی) [I]	[u:] أو	် [ʊ]	6] ۶	[æ] اے
[e:] اے	َ [e]	[:0] أو	[:3] او	[æ:] اے	் [o]	

lV.	Inasai voweis	(10)				
	[ã:] ^أ ں	[ĩ:] ایں	[Ĩ] ايرِ	[ũ:] أو ں	(ữ] مُن	
	[ẽː] ایں	[ã] وَوں	[õ:] أوں	[3] اوں	[÷َæ] ایں	

iv. Nasal Vowels (10)

2.4.2 Urdu Morphosyntax

Urdu is considered as a rich, complex language like Arabic and Persian etc. due to a lot of variation in inflectional and derivational morphology (Aslam, 2012).

Compounding, reduplication and echo-compounding are common derivational phenomena and suffixations are inflectional processes in Urdu. Honour / respect is another unique phenomenon which makes it more complex. Although its affixes have certain rules to follow but at times it becomes difficult to predict their occurrence especially in speech (Aslam, 2012; Hardie, 2004).

Morphology and Syntax are the combined part of the grammar of many languages of the world (Fromkin, Rodman, & Hyams, 2003; Herschensohn, 2007). Morphology studies the internal structure or form of words, primarily through the use of morphemes (minimal meaningful grammatical units) in the construction of these words and deals with the rule governing changes in word meanings. It is also the system of joining these morphemes for creating proper language and is regarded as a key component in the analysis and synthesis of all word formations of any language. And this morphology, especially its inflectional part allows different syntactic constructions through word combinations in phrases and sentences and helps through syntax to observe the rules involving in the arrangement of words in sentences (Herschensohn, 2007; Humayoun & Ranta, 2010; Radford, 2004; Shulman & Capone, 2010).

These morphosyntactic categories are universal but their use is language specific. Each language has a unique combination of these categories to express grammatical information through inflection and lexical information through separate lexical items (Santos, 2008; Tallerman, 2015) and this variation causes vitality and meanings in human languages.

Urdu inflection, related with the formation of multiple grammatical forms from a single lexeme, is all about suffixation. Urdu suffixation is called 'fusional' because the inflection of a single suffix produces identical forms like "the suffix -e indicates masculine oblique case or plural number on adjectives but also indicates the subjunctive form of verbs" (Hardie, 2004). The following is a brief description of Urdu noun and verb morphosyntactic categories.

2.4.2.1 Noun Inflection in Urdu Language

Nouns in Urdu inflect in a number of ways and have productive morphology. They inflect in gender, number and case.

The one reason for difference in world languages can be gender difference which is one of the most salient features of many Indo-European languages. Different languages discriminate gender differently, sometime this discrimination is based on the property of noun, sometimes on human - non human and sometimes on animate and inanimate (Corbett, 2006). Natural gender or lexical inherent gender classifies animated nouns on the basis of sex like male as masculine and female as feminine while grammatical gender which is a grammatical feature for showing contrastive analysis of noun as masculine and feminine (Crystal, 2008) can be used as referential, referring as male and female and morphological distinction involving inflection, derivation and morphosyntactic agreement (Janhunen, 2000).

Urdu has natural gender (Ranjan, 2013) and grammatical gender also. Gender in Urdu language has the relationship of binary opposition as masculine or feminine e.g. masculine laRkA, 'É' ("boy") / feminine larki, 'É' ("girl"), which means a noun can take only one value and this gender of the noun affects the other linguistic items in the sentence like Lithuanian and Russian languages discussed by Voeikova & Savickiene (2001). Nouns in Urdu also have gender feature of markedness or unmarkedness. Marked nouns have gender suffix. So this inflection can be analyzed in four ways like marked masculine, unmarked masculine, marked feminine, unmarked feminine (Schmidt, 1999). But the nouns which are common in Urdu and Punjabi contain the same gender (Cummings & Bailey, 2005).

In languages for counting the objects dual, trial and paucal number values are observed which can be expressed through lexical items and through morphosyntactic marking. The number marking is not mandatory in every language, we can find from least marking to the most (Corbett, 2000). The number category which is also a grammatical feature for showing contrastive analysis of nouns (Crystal, 2008) inflects in Urdu on two contrasts i.e. as singular *laRkA*, الر ك

("boys"). So every noun in Urdu has feature value of singular and plural indicating one and more than one entities.

The third category of noun which inflects is case category which is the change of form, a morphosyntactic feature showing contrastive analysis of nominative or accusative marking for syntactic processes (Crystal, 2008). Some languages like Russian, Turkish and Finnish etc. use case suffixes while in languages like German and Romanian separate lexical item are used like articles, auxiliaries or determiners to mark case.

Number of case marking is also different in different languages (Ruigendijk, 2015). Mohanan (1994) defines three types of case marking in Hindi / Urdu, firstly case clitics or phrasal affixes like *ne*, *ko*, *per* etc., secondly postpositions like *liye*, *tak* etc. used with adjunct as free lexical items and the third type of case marking is inflectedstem forms ending in *alif*, ¹ ("-A") which are further of three types like nominative without any inflection, non-nominative or oblique with case clitics after it and vocative case. The grammatical functions of noun like subject, direct object, indirect object and possessive etc. are expressed by these markers whose form changes with case function. Sometimes the same case markers can be used to mark case functions differently (Raza, 2011). They are independent lexical unit and are considered as a separate part of speech. On the basis of these markers Butt & kings (2004) and Raza (2011) mention seven, Siddiqi (1971) eight and Humayuon (2006) nine cases. Except Urdu, the old Indo-European languages like Sanskrit, Latin etc. also expressed their case through morphological inflections even new Indo-Aryan languages, due to their flexible or free word order mark their cases with clitics and postpositions (Ahmed, 2007). The following table of Urdu cases, their markers /clitics, their morphological and grammatical functions is the combined version of Humayoun (2006) and Raza (2011).

Case	Clitic forms	Morphological change	Grammatical function
Nominative		Same (no change)	Subject, Direct object
Oblique		Nominative or its any other	Locative & Temporal
		form	object
Ergative	ne	Oblique + ne	Subject

Table 2	.1 Urd	u Cases
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Accusative	ko	Oblique + ko	Direct object
Dative	ko, ke	Oblique + (ko, ke)	Subject, Indirect object
Instrumental/	se	Oblique + se	Instrumental, Temporal
Temporal			object
Genitive	ka, ke, ki	Oblique + (ka, ke, ki)	Possessive relation
			(between two nominals)
Locative	main, per, tak	Oblique + (main, per, tak)	Locative object
			(Oblique argument)
Vocative	ae, or nothing	ae + oblique or its other	Direct address
		form	

2.4.2.1.1 Masculine Suffixation

The gender of singulars and its termination plays a pivotal role in the configuration of plurals (Platts, 2002).

a) Marked Masculine Suffixation

Marked masculine singular nouns show plural and case suffixation in a number of ways.

i. Substitution

The Hindi based marked masculine singular nominative ending in *alif*, ("-A") or *gol hey*, \circ ("-a") letter is substituted by *baRi ye*, \succeq ("-e") during the formation of nominative plurals and singular oblique and vocative cases (Platts, 2002; Schmidt, 1999; Hussain, 2004): e.g.

chokrA, ("boy") - chokre, جهوکر ("boys"), cakotra, چکوتر ("grape fruit") - cakotre, چکوتر ("grape fruits"), jula, جلاه, (weaver) - julAhe, جلا ہے ("weavers").

Sr.	Gender	Number	Case		Noun		
1	Masculine	Singular	Nominative		<i>chokrA</i> , چوکر ^ا ("boy")		
چاتا ہے۔	چهوکرا شور م						
chokrA	shor	macA	A-t-A	hE.			
boy	noise	make	e-Imperf.M.S	be.Pr.3.S			
The boy makes a noise.							
2 1	Masculine	Plural	Nominative	(<i>chokre, چ</i> ہوکر ("boys")		
چھوکر ے شور مچاتے ہیں ۔							
chokre	shor	та	cA-t-e	hEN.			
Boys	noise	ma	ke-Imperf.M.Pl	be.Pr.	3.Pl		
The bo	ys make a no	oise.					
3 1	Masculine	Singular	Oblique		<i>chokre, چ</i> ہوکر ("boy")		
چایا ہے۔	رے نے شور م	چهوک					
chokre	ne	shor me	acA-y-A	hE.			
boy	Erg	noise ma	ake-Perf.M.S	be.Pr.3.	S		
The boy has made a noise.							
4 I	Masculine	Singular	Vocative		<i>chokre, چ</i> ہوکر ("boy")		
ر مچاؤ۔	چھوکر _! شور مچاؤ۔						
chokre	! shor	macA-o.					
o boy	noise	make-Ir	np.2.S				
O boy!	O boy! make a noise.						

Table 2.2 Examples of marked noun inflectional variation chokrA, ("boy") چهوکر ("boy")

While in the formation of plural oblique and vocative, this *baRi ye*, \leq ("-e") is substituted by *vao nUn Gunna*, $_{\mathcal{O}}$ ("-o") and *vao*, $_{\mathcal{O}}$ ("-o") respectively (Platts, 2002; Schmidt, 1999; Hussain, 2004): e.g.

5	Masculir	ne	Plural	Oblique	<i>chokroN</i> چهوکروں ("boys")		
چھوکروں نے شور مچایا ہے۔							
cha	okroN	ne	shor	macA-y-A	hE		
bo	ys	Erg	noise	make-Perf.M.S	be.Pr.3.S		
The boys have made a noise.							
6	Masculir	ne	Plural	Vocative	<i>chokro</i> چهوکرو (boys")		

کرو! شور مچاؤ۔	چهو				
chokro!	shor	macA-o			
o boys	noise	make-Imp.2.Pl			
O boys! make a noise.					

The Arabic based marked masculine singular nominative ending in *alif*, ("-A") or *gol hey*, \circ ("-a") follow the same rule (Platts, 2002): e.g.

But one thing can be observed in the plural nominatives and plural oblique of masculine singular ending in *gol hey*, • ("-a") where they retain Arabic termination *At*, ""-At") along with Urdu termination, *gol hey*, • ("-a") of singular nominative and *ye*, \simeq ("-e") of singular oblique is replaced with *At*, "-At"): e.g.

Table 2.3 *Examples of marked noun inflectional variation tajurba*, تجربہ ("experiment")

Sr.	Gender	•	Number	Case		Noun
1	Masculin	ne	Singular	Nominative	ربہ ,tajurba	("experiment") نج
اس نے کامیاب تجربہ کیا۔						
US		ne	kAmyAb		tajurba	ki-A.
he.3.]	M.S.Obli	Erg	successful.Ad	j.M.S.Nomi	experiment	do-Perf.M.S

He did a successful experiment.

2 Masculine Plural Nominativ	ve <i>tajurbe / tajurbAt</i> ,					
	تجربے/ تجربات					
	("experiments")					
اس نے کامیاب تجربے/ تجربات کیے۔						
us ne kAmyAb	tajurbe / tajurbAt ki-e					
he Erg successful.Adj.M.Pl.Nomi	experiments do-Perf.M.Pl					
He did successful experiments.						
3 Masculine Singular Oblique	<i>tajurbe, ت</i> جرب <i>ے</i> ("experiment")					
اس نے کامیاب تجربے کو دوہر ایا۔						
us ne kAmyAb	tajurb-e ko dohrA-yA					
he Erg successful. Adj.M.S.Obli	experiment Acc repeat-					
Perf.M.S						
He repeated the successful experiment.						
4 Masculine Plural Oblique	tajurbAt / tajuboN,					
	("experiments") تجربات/تجربوں					
اس نے کامیاب تجربات / تجربوں کو دوہر ایا۔						
us ne kAmyAb tajurbA	t/tajuboN ko dohrA-yA.					
he Erg successful Adj.M.Pl.Obli experim	ments Acc repeat-					
Perf.M.S						
He repeated the successful experiments.						

The Persian based marked masculine singular nominative ending in *gol hey*, • ("-a") follow the same rule of substitution (Platts, 2002): e.g.

sipAra, سپاری ("holy chapter") - sipAre, سپارے - sipAroN, سپاری ("holy chapters"), ("holy chapters"), darvAza, دروازی - darvAze, دروازی - darvAzoN, دروازی ("door").

The singular ending *alif nUn Gunna*, النين ("-aN") is substituted by *eN*, النين ("-eN") during the formation of nominative plurals and singular oblique (Schmidt, 1999; Hussain, 2004): e.g.

dhuaN, دهوان ("smoke") - dhueN, دهوان ("smoke"), kuaN, كنوان ("well") - kueN, كنوان ("wells"), ruaN, روئيں ("hair") - rueN, روان ("hair").

Sr.	Gender	Number	Ca	se		Noun		
1	Masculine	Singular	Nomin	ative		<i>kuaN</i> , کنواں ("well")		
ا ہے۔	کنواں گہر							
kual	V gehr-A		hE					
well	deep-Adj.	M.S.Nomi	be.Pr.3.	S				
The	well is deep.							
2	Masculine	Plural	Nomina	ative		<i>kueN</i> , کنویں ("wells")		
ہیں ۔	کنویں گہر ے							
kuel	l gehr-e		hEN					
well	wells deep-Adj.M.Pl.Nomi be.Pr.3.Pl							
The	The wells are deep.							
3	Masculine	Singular	Obliqu	e		<i>kueN</i> , کنویں ("well")		
جاؤ ـ	کنویں کے پاس مت	x						
kuel	V ke	pAs	mat	jA-o				
well	Poss-M.S	near.Adv	v Neg	go-Imp	.2.S			
Doı	not go near well	l.						
While	e in the formati	on of plural ob	lique this	») انیں ,s <i>eN</i>	-eN") is r	replaced with vao nUn		
Gunn	a, وں ("-oN"): و	e.g.						
4	Masculine	Plural	Oblique		kı	<i>uoN,</i> کنوو ں ("wells")		
ا ہے۔	کا حسن ماند پڑ گی	کنوو ں سے شہر						
kuol	V se	shehar		k-A		husan		
well	s from.Abl	city.N.M.S.C	Obli	Poss-M.S.N	Nomi	beauty.N.M.S.Nomi		
mA	nd pak	gi-A		hE				
dim	fall	go-Pe	erf.M.S	be.I	Pr.3.S			
The	The beauty of the city is dimmed due to wells.							

Table 2.4 Examples of marked noun inflectional variation kuaN, كنوان ("well")

ii. Addition

Except that there is a rule of addition in singular ending Ain (of Arabic origin), ξ ("<u>a</u>") which adds baRi ye, \leq ("-e") in plural nominative and singular oblique (Hussain, 2004): e.g.

Sr.	Gender	Number	Case	Noun				
1	Masculine	Singular	Nominative	Murabb <u>a</u> , g	("area") مرب			
ہے -	یہ مربع زرخیز							
ye		murabb <u>a</u>	zarxez	hE				
this.	DP.S.Nomi	area	fertile-A	lj.M.S.Nomi be.Pr	:.3.S			
This area is fertile.								
2	Masculine	Plural	Nominative	murabbe, 🔫	("areas") مرب			
یہ مربعے زرخیز ہیں ۔								
ye		murabbe	zarxez	hEN				
thes	e.DP.Pl. Nomi	areas	fertile	be.Pr.3.Pl				
The	se areas are fer	tile.						
3	Masculine	Singular	Oblique	murabbe, 🗻	("areas") مرب			
ہے۔	ں زرخیزی مشہور	اس مربعے کے						
is		murabbe	k-i	zarxezi				
this.	DP.S.Obli	areas	Poss-F.S	fertility-N.F.S.Nomi				
mas	hhUr	hE						
fam	famous.Adj.F.S.Nomi be.Pr.3.S							
The	The fertility of this area is famous.							

Table 2.5 Examples of marked noun inflectional variation murabba, حربع ("area")

Plural oblique is formed with the addition of *vao nUn Gunna*, $\upsilon_{\mathfrak{g}}$ ("-oN") to the base lexeme: e.g.

4 Masculine Plu	ıral Obli	que	murabboN, مربعوں ("areas")			
ان مربعوں کی زرخیزی مشہور ہے۔						
in	murabboN	k-i	zarxezi			
these.DP.Pl.Obli	areas	Poss.F.S	fertility-N.F.S.Nomi			
mashhUr	hE					
famous.Adj.F.S.Nomi	be.Pr.3.S					
The fertility of these areas is famous.						

But in many singulars ending in letter *Ain*, ۲ ("<u>-a</u>") only, Arabic termination of *alif te*, ("-At") is used in making plural nominative and plural oblique: e.g. moZU, موضوع ("topic") - moZuAt, موضوعات ("topics"), Tavvakko, توقعات ("expectation") - tavvakkoAt, توقع ("expectations"),

Table 2.6 <i>Examples</i>	of marked i	noun inflectional	variation n	موضوع noZU,	("topic")
1		./			

Sr.	Gender	Number	Case	No		oun
1	Masculine	Singular	Nominative		moZU,	("topic") موضوع
' ہے۔	، موضوع مناسب	ب				
ye		moZU mu	nAsib		hE	
this.	DP.S.Nomi	topic app	propriate.Adj.M	.S.Nomi	be.Pr.3	3.S
This	topic is appr	opriate.				
2	Masculine	Singular	Oblique		moZU,	("topic") موضوع
ریں ۔	وضوع پر بات ک	آپ اس م				
AAp		is moZU	par be	At kar-	eN	
you.	2.PI.Nomi	this topic	on. Loc t	alk do-I	mp.2.S	
Talk	on this topic					
3	Masculine	Plural	Nominative	moZ	يات ,ZuAt	("topics") موضو ع
ہیں ۔	ضوعات مناسب	یہ مو				
ye		moZuAt n	nunAsib			hEN
thes	e.DP.Pl. Nom	ni topics ap	propriate.Adj.N	A.Pl.Nomi	i	be.Pr.3.Pl
These topics are appropriate.						
4	Masculine	Plural	Oblique	moZ	يات ,ZuAt	("topics") موضوع
آپ ان موضوعات پر بات کریں ۔						
AAp		in	moZuAt	par	bAt	kareN
you.	2.PI.Nomi t	hese.DP.Pl.Obli	topics	on.Loc	talk	do-Imp.2.S
Talk on these topics.						

The Arabic based singular ending in letter *alif nUn*, ان ("-An") also adds *alif te*, ("-At") in the formation of plural nominative (Hussain, 2004) and there are two ways to make oblique: i.e. with the addition of "-At" and "-oN" suffixes at the end: e.g.

*imtihAn, ا*متحان ("examination") - *imtihAnAt, ا*متحان / *imtihAnoN, ا*متحان ("examinations"), *makAn, مكانو*ں ("house") - *makAnAt, مكانات (makAnoN, مكانو*) - *makAnAt*, ("houses").

Sr.	Gender	Number		Case	Noun
1	Masculine	Singular	No	ominative	imtihAn, امتحان
					("examination")
ں کیا ۔	ں نے امتحان پاس	مير			
mEN	ne	imtih	An	pAs	ki-A
I.1.S	.Obli Erg	exami	ination	pass	do- Perf.M.S
I pas	sed the exami	ination.			
2	Masculine	Singular		Oblique	imtihAn, امتحان
					("examination")
نگی ۔	بعد میں سفر کرو	اس امتحان کے			
is		imtihAn	k-e	bAd	meN
this.I	OP.S.Obli	examination	Poss-M.S	after.Ad	v I.1.M.S.Nomi
safar	· kai	uN §	g−i		
trave	l do-	Subj.1.S F	fut-F.S		
I wil	l travel after t	his examination			
3	Masculine	Plural	No	ominative	imtihAnAt, امتحانات
					("examination")
ہیں ۔	متحانات ہورہے	١			
imtih	AnAt	ho rah-e		hEN	
exan	ninations	be Prog-N	A.Pl	be.Pr.3.Pl	
Examinations are going on.					
4	Masculine	Plural		Oblique	imtihAnAt / imtihAnoN,
					امتحانات/امتحانوں
					("examinations")
میں نے امتحانات/امتحانوں میں کامیابی حاصل کی ۔					
mEN	ne ne	imtihAnAt /	′ imtihAnoN	meN	kAmyAbi
I .1.S	S.Obli Erg	examination	ns	in.Loc	success-N.F.S.Nomi
hAsil ki					
got do-Perf.F.S					
I got distinction in these examinations.					

Table 2.7 Examples of marked noun inflectional variation imtihAn, امتحان ("examination")
b) Unmarked Masculine Suffixation

i. Without Inflection

Unmarked masculine singular nominative nouns do not have special suffixes in making nominative plurals, or singular oblique or singular vocative (Schmidt, 1999; Platts, 2002) like Hindi based nominative singular nouns: e.g.

sunAr, سنار ("goldsmith"), jogi, جوگی ("hindu faqir").

Sr.	Gender	r	Number		Case	Noun
1	Masculin	ne	Singular		Nominative	sunAr, سنار ("goldsmith")
ہا تھا۔	ىناركام كر ر	لا				
sunAr		kAm		kar	rah-a	th-A
goldsn	nith	work		do	Prog-M.S	be.Pst.M.S
The go	oldsmith w	vas work	ing.			
2	Masculi	ne	Singular		Oblique	sunAr, سنار ("goldsmith")
ئام كيا ـ	سنار نے ک					
sunAr		ne	kAm		ki-A	
goldsn	nith	Erg	work	do- Perf.M.S		5
The go	oldsmith w	vas to wo	ork.			
3	Masculi	ne	Plural		Nominative	sunAr, سنار ("goldsmith")
ے تھے -	کام کر ر ہے	سنار				
sunAr		kAm	kar	rah-	e	th-e
goldsn	niths	work	do	Prog-	-M.Pl	be.Pst.M.Pl
The go	oldsmiths	were wo	rking.			
4	Masculi	ne	Singular		Vocative	sunAr, سنار ("goldsmith")
! بیٹھو۔	سنار					
sunAr!	,	bE	Th-o			
o gold	lsmith	sit-	Imp.2.S			
O gold	lsmith! sit					

Table 2.8 Examples of unmarked noun inflectional variation sunAr, سنار "goldsmith")

ii. Addition

But in the formation of plural oblique *vao nUnGunna*, ون ("-oN") and plural vocative *vao*, و ("-o") is added: e.g.

	(goldsmiths"), sunAro, سناروں (goldsmith") - sunAroN, سنار (goldsmith"), sunAro,							
	سنارو ("o goldsmith").							
	jog	<i>i,</i> جوگی ("hi	ndu faqir") - <i>jogiol</i>	۷, جوگيوں ("hindu faqir"),				
	jogi	جوگيو _. 0	("o hindu faqir").					
5	Masculine	Plural	Oblique	sunAroN, سناروں ("goldsmiths")				
کیا ۔	سناروں نے کام							
sunA	roN ne	kAm	ki-A					
gold	smiths Erg	work	do-Perf.M.S					
The	goldsmiths w	orked.						
6	Masculine	Plura	l Ocative	sunAro, سنارو ("Goldsmith")				
بيڻھو۔	سنارو!							
sunA	Aro!	bETh-o						
o go	ldsmiths	sit-Imp	.2.Pl					
O go	oldsmiths! sit.							

Arabic based unmarked masculine also follow the same pattern: e.g.

kalAm, کلاموں ("work") - kalAmoN, کلام ("works").

Sr.	Gender	Numbe	r (Case	Noun			
1	Masculine	Singula	r Nor	ninative	<i>kalAm</i> , אר	² ("work")		
۔ ہے ۔	, كلام بېت مقبو ل	یہ						
ye		kalAm b	ohat	makbUl		hE		
this.E	DP.S.Nomi	work ve	ery. Adv	famous.A	dj.M.S.Nomi	be.Pr.3.S		
This	This work is very famous.							
2	Masculine	Singular	r O	blique	<i>kalAm</i> , لام	۲ ("work")		
ں کیا ۔	اس نے محسوس	ئي خوبصورتي کو	اس کلام ک					
is		kalAm	k-i	xubsurati	ko			
this.E	DP.S.Obli	work	Poss-F.S	beauty.N.F.	S.Obli Acc			
us ne		mEhsUs	ki-A					
he.Pc	oss.3.S.Obli	feel	do-F	erf.M.S				
He fe	elt the beauty	of this work.						
3	Masculine	Plural	Nor	ninative	<i>kalAm</i> , کلام	("works")		

Table 2.9 Examples of unmarked noun inflectional variation kalAm, كلام ("work")

مقبول ہیں ۔	، کے سب کلام	فيض					
Faiz	k-e	S	ab kalAi	т	makbUl		
Faiz	Poss-M.Pl.N	Nomi a	ull work	S	famous.Adj.M.Pl.Nomi		
hEN							
be. Pr.3.F	21						
All of Fai	iz's works ar	e famous.					
М	Masculine P		ural Oblique		<i>kalAmoN</i> , کلاموں ("works")		
ں کو پڑھا ۔	نے تمام کلاموں	میں					
mEN	ne	tamAm	kalAmoN	ko	paRh-A.		
I.1.S.Obli	i Erg	all	works	Acc	read-Perf.M.S		
I read all the works.							

Same rule can be observed in Persian based unmarked masculine: e.g.

nAm, ناموں ("name") - nAmoN, ناموں ("names").

Sr.	Gender	Numb	er (Case		Noun
1	Masculine	Singul	ar Nor	ninative		nAm, نام ("name")
ہ ہے۔	میر ا نا م طاہر					
mer-A	4	nAm	Tahira	hE		
my- I	M.S.Nomi	name	Tahira	be.Pr	r.3.S	
My n	ame is Tahira	l.				
2	Masculine	Singul	ar O	blique		nAm, نام ("name")
ہ ہے -	ام کا مطلب پاکیز	میر ے ن				
mer-e	2	nAm	k-A	matle	ab	
my-N	I.S.Obli	name	Poss-M.S	mear	ning.N.I	M.S.Nomi
pAkiz	<i>a</i>		hE			
pure.	Adj.M.S.Non	ni	be.Pr.3.S			
The r	meaning of m	y name is pu	re.			
3	Masculine	Plura	l Nor	ninative		<i>nAm, نا</i> م ("name")
م ہیں ۔	ے اور کیا کیا نا	آپ ک				
AAp		k-e	or	kyA	kyA	nAm hEN

Table 2.10 Examples of unmarked noun inflectional variation nAm, نام ("name")

Wha	at are your other	names?				
4	Masculine	Plural	Oblique	nAmoN	names') ناموں,/	")
ھیں ۔	ں کوفہر ست میں لک	ان نامور				
in		nAm-oN ko	fehrist	mein	likh-eN	

dat list.N.F.S.Obli

in.Loc

write-Imp.2.Pl

you.2.PI.Obli Poss-M.Pl.Obli more who who name be. Pr.3.Pl What are your other names?

Write these names in list.

these.DP.3.Pl.Obli.

2.4.2.1.2 Feminine Suffixation

names

a) Marked Feminine Suffixation

Marked feminine singular has no suffixation while plural has many productive forms.

Addition

The Hindi based ending in letter *choTi ye, ی* ("-i") adds *alif nUn Gunna, ا* ("aN") in making marked feminine plural nominative (Schmidt, 1999; Hussain, 2004; Platts, 2002) :e.g.

Sr. Gender	Number	Case	Noun			
1 Feminine	Singular	Nominative	Billi, بلى ("cat")			
لی خوبصورت ہے۔	میری					
mer-i	billi	xubsurat	hE			
my-F.S.Nomi	cat	beautiful.Adj.F.S.Nor	ni be.Pr.3.S			
My cat is beauti	ful.					
2 Feminine	e Singular	Oblique	("cat") بلی Billi, شای			
ی بلی کو مت پکڑو۔	میں					
mer-i	billi ko	mat pakR-o				
my-F.S.Obli	cat Acc	Neg catch-Im	p.2.S			
Do not catch my cat.						
3 Feminine	Plural	Nominative	billiAn, بلياں ("cats")			

Table 2.11 Examples of marked noun inflectional variation billi, بلى ("cat")

میری بلیاں خوبصورت ہیں ۔							
mer-i	billiaN	xubsurat	hEN				
my-F.Pl.Nomi.	cats	beautiful.Adj.F.Pl.Nomi	be.Pr.3.Pl				
My cats are beautiful.							

And vao nUnGunna, ون ("-oN") is added in making plural oblique: e.g.

4]	Feminine	Plural	Oblique	billioN, بليوں ("cats")
ت پکڑو۔	بليوں كو م			
bill-ioN	l ko	mat	pakR-o	
cats	Acc	Neg	catch-Imp.2.S	
Do not	catch the cats.			

While vao, و ("-o") is added in making plural vocative: e. g.

5	Feminine	Plural	Vocative	billio, بليو ("cats")		
ر جاؤ۔	بليو ! با					
billio.	' bAhar		jА -o			
o cat	s outside.	.Adv	go-Imp.2.S			
O cats! go out.						

Arabic based feminine singular follows the same rule: e.g.

bAndii, باندى ("maid") - bAndiaN, باندى ("maids") - bAndio, باندى ("o maids") *masxari, مسخرى ("jokress") - masxariaN, مسخرى ("jokresses") - masxario, مسخري ("o jokresses").* Persian based feminine singular also follow the same rule: e.g.

- ("neighbor ") - hamsAiaN, ہمسائیں ("neighbor") -

hamsAio, ہمسائيو ("o neighbours"),

sherni, شيرنيان ("lionesses") - sherniaN, شيرنيان ("lioness") - shernio,

شيرنيو ("o lionesses").

The ending *ye alif*, با ("-yA") adds *nUn Gunna*, ن ("-aN") in making plural nominative (Schmidt, 1999; Platts, 2002; Hussain, 2004): e.g.

cuhiyA, چوہیا ("she-mouse") - cuhiyaN, چوہیا ("she-mice"),

Sr.	Gender	Numbe	r Case	Examples					
1	Feminine	Singular	: Nominative	bandariyA,	("monkey") بندريا				
ہ گئی ۔	با دیوار پر چڑہ	بندري							
bande	ariyA	divAr	pe	caRh	ga-i				
monk	tey	wall.N.F.S.O	bli on.Loc	climb	go-Perf.3.F.S				
The r	nonkey clim	bed up the wa	11.						
2	Feminine	Singular	Coblique	bandariyA,	("monkey") بندريا				
رو کو۔	بندریا کو رو کو۔								
bande	ariyA ko	rok-o!							
monk	aey Acc	stop.Imp.	2.Pl						
Stop	monkey!								
3	Feminine	Plural	Nominative	bandariyaN,	("monkeys") بندريار				
. گئيں ـ	بندریاں دیوار پہ چڑ ہ گئیں ۔								
bande	ariyaN	divAr pe	caRh	gaiN					
monk	teys	wall on.I	Loc climb	go-Perf.3.F.	Pl				
The r	nonkeys clir	nbed up the w	all.						

Table 2.12 *Examples of marked noun inflectional variation bandariyA*, بندريا ("monkey")

vao nUnGunna, ون ("-oN") is added in making plural oblique after replacing *alif*, ۱ ("-A") of singular oblique: e.g.

4	4 Feminine		Plural	Oblique	<i>bandarioN</i> , بندريوں		
					("monkeys")		
بندریوں کو دیوار پر چڑھنا پڑا۔							
banda	ırioN	ko	divAr	par	caRh-nA	paR-A	
monk	eys	dat	wall	on.Loc	climb-Inf.3.Nomi	fall-	
Perf.N	A.S						
The monkeys had to climb up the wall.							

While vao, و ("-o") is added in making plural vocative: e.g.

5	Marked	Feminine	Plural	Vocative	بندريو ,Bandario	("Monkeys")
---	--------	----------	--------	----------	------------------	-------------

بندریو! دیوار سے مت آو۔								
bandario	divAr	se	mat	AA-o				
o monkeys	wall	from.Abl	Neg	come-Imp.2.Pl				
O monkeys! Do	not come	from the wall.						

Persian based singular follows the same rule: e.g.

momiyA, موميا ("mummy") - *momiyaN*, موميا ن ("mummies") - *momio*, موميو ("o mammies").

b) Unmarked Feminine Plural Suffixation

Except the above mentioned forms there are other forms which show inflection but their rules have to be observed and these forms are called unmarked forms.

Addition

The Hindi based ending letter other than *choTi ye*, ی ("-i") adds *eN*, ایں ("-eN") termination in making plural nominative (Schmidt, 1999; Platts, 2002): e.g.

cAl, جال ("trick") - *cAleN*, چال ("tricks), *niind*, نيندي ("sleep") - *niindeN*, نيند ("sleeps").

Sr.	Gender]	Number	Case		Noun
1	Feminine	Sir	ngular	Nominative		Niind, نيند ("sleep")
گئی ۔	ں نیند خر اب ہو	تمہاری				
tumk	ıAr-i		niind	xarAb	ho	ga-i
your	.F.S.Nomi		sleep	disturb	be.Subj.3.S	go- Perf.F.S
Your sleep has been disturbed.						
2	Feminine	;	Singular	Oblique		Niind, نیند ("sleep")
کرو۔	د کو خر اب مت	اپنی نین				
apn-	i	niind	ko	xarAb	mat	kar-o
own	-F.S.Obli	sleep	Acc	disturb	Neg	do- Imp.2.Pl
Do n	ot disturb y	our slee	p.			
3	Feminine)	Plural	Nominative	niii	ndeN, نينديں "sleeps")
ئئیں ۔	ديں خر اب ہو گ	آپ کی نیز				
AAp	i	k-i	niind-	eN xarAb	ho ho	ga-iN

Table 2.13 Examples of unmarked noun inflectional variation niind, نيند ("sleep")

you.F.Pl. Poss-F.S sleeps disturb be go-Perf.3.F.Pl Your sleeps have been spoiled /disturbed.

4	Femini	ne Pl	ural	Oblique		niindoN, نیندوں ("sleeps")		
اپنی نیندوں کو خراب مت کرو۔								
Apn-	i	niindo-N	ko	xarAb	mat	kar-o		
Own	-F.S.	sleeps	Acc	disturb	Neg	do- Imp.2.Pl		
Do n	Do not disturb your sleeps.							

vao nUnGunna, ون ("-oN") is added in making plural oblique: e.g.

Arabic based singulars also follow the same pattern: e.g.

ت Another phenomenon is observed that the feminine singulars which end on letter *te*, ("-at") also follow the same pattern (Platts, 2002; Schmidt, 1999): e.g.

shohrat, شېرتوں ("fame") - shohrateN, شېرتي shohratoN, شېرت ("fames"). rehmat, رحمت ("blessing") - rehmateN, رحمت ("blessings").

But there are many feminine singulars of Arabic origin which end on *te*, $\dot{-}$ ("-at") but in the formation of plural nominatives and oblique, they retain their Arabic termination *alif te*, $\dot{-}$ ("-te") after removing *te*, $\dot{-}$ ("-te") from end along with Urdu termination *eN*, الت ("-eN") (Platts, 2002): e.g.

ravAyat , روايتي ("tradition") - ravAyAt, روايت / ravAyateN, روايتي ("traditions"). ravAytoN, روايتو ("traditions"). ziyArat, زيارتي ("pilgrimage") - ziyArAt, زيارت ("pilgrimages"). ziyArtoN, زيارتون ("pilgrimages").

Persian based feminine singulars also follow the same pattern: e.g.

xuAhish , خوابشين ("wish") - xuAhishAt, خوابش / xuAhisheN, حوابشيں xuAhishoN, خوابشوں ("wishes").

But there are Persian based feminine singulars which end in nUn, $\dot{\upsilon}$ and follow the same pattern: e.g.

kAn , کانوں ("mine") - kAneN, کانیں - kAnoN کانوں ("mine").

zabAn, زبانوں ("language") - zabAneN, زبانی - zabAnoN, زبانوں ("languages") .

The ending *alif*, [†] ("-A") *vao*, *و* ("-U") add *eN*, النين ("-eN") with hamza in the formation of plural nominative (Platts, 2002; Schmidt, 1999): e.g.

ghaTA, گھٹائیں ("cloud") - ghaTAeN, گھٹا ("clouds"),

bahU, ببو ("daughter in law") - bahueN, ببوئيں ("daughters in law"),

Table 2.14 Examples of unmarked noun inflectional variation bahU, ببو ("daughter in law")

Sr	Gender	Nu	ımber	Case	•			Nou	In	
1	Feminine	Sing	gular	Nomina	tive		bahU,	،'') بېو	daughter ir	n law")
، ہے۔	جھاڑو دےرہے	بېو .								
bah	U	ji	hARU	de		rah-i		1	hE	
daug	ghter in law	b	room	apply	r	Prog-	F.S		be. Pr.3.S	
The	daughter in I	law is s	sweeping							
2	Feminine	Sing	gular	Oblique			bahU,	،") بېو	daughter ir	n law")
ى كى۔	بہو نے جھاڑو سے صفائی کی۔									
bah	U	ne	jhARU		se		SafA	i	k-i	
daug	ghter in law	Erg	broom.F	S.S.Obli	fron	n.Abl	clear	ness	do- Per	f.3.F.S
The	daughter in 1	law cle	aned with	h broom.						
3	Feminine	Р	Plural	Nomina	tive	bahu	یی ,eN,	d") بہو	aughters ir	n law")
، ہیں۔	جھاڑو دے رہے	بہوئیں								
bahi	ueN		jhARU	de		rah-i		hE	'n	
dau	ghters in law	7	broom	apply	/	Prog-I	F.S	be.	Pr.3.Pl	
The	daughters in	law ar	e sweepi	ng.						

While vao nUn Gunna, ون ("-oN") is added to make plural oblique: e.g.

گھٹاؤں ,ghaTAoN	("clouds"),	hahuoN, بہوؤں	("daughters	in law	")
-----------------	-------------	---------------	-------------	--------	----

4 Feminine	Plural	Oblique	bahuoN,	("daughters in law") بېوۇں
سے صفائی کی ۔	بہوؤں نے جھاڑو			
bahuoN	ne	jhARU		se
daughters in la	w Erg	broom.N.F.S.C	Obli	from.Abl
SafAi	k-i			

cleaness do- Perf.3.F.S

The daughters in law cleaned with brooms.

Arabic based singulars follow the same pattern: e.g.

ridA, ردائیں ("cloaks") - ridAeN, ردائیں ("cloaks) - ridAoN, ردائیں ("cloaks"), duA, دعاؤں("prayer") - duAeN, دعائیں ("prayers") – duaoN, دعاؤں ("prayers"). AAbrU, آبروؤں ("fame") - AAbrueN, آبروئیں ("fame") - AAbruoN, آبرو ("fames").

Same is the case with Persian based singulars: e.g.

sazA, سزائیں ("punishment") - sazAeN, سزائیں ("punishments") - sazAoN, ("punishments"), adA , ادائیں ("expression") - adAeN, ادائیں ("expressions") - adAoN, اداؤں ("expressions"), AArzU, آرزوئیں ("wish") - AArzueN, آرزو ("wishes") - AArzuoN,

2.4.2.2 Verb Inflection in Urdu Language

Urdu Verbal System is complex because of the inflection in main verb or lexical verb and auxiliary in the same way. Verbs express argument-structure and also tense, aspect, mood and voice. A single verb has more than 60 forms which makes it more complex as compared to other languages like English in which verb has just five forms (Rizvi, 2007). It not only inflects in number (singular / plural), person [1,2, (honorific form AAp), 3], gender (masculine / feminine) but also in tense which is time of action (present, past), mood which is type of action (indicative, subjunctive, imperative) and aspect, duration of action (progressive also called as durative or continuous, perfective, imperfective). The main verb tells the main action and the other verbs like participles tell aspect and auxiliaries tell the tense (Schmidt, 2007).

Tense and time could not be mixed. Different languages express the concept of time differently. Some languages have minute expression, precise and distinct stretches of time while the others do not. The concept of time is either expressed through grammatical devices or markers or through some lexical items like adverbs in these languages (Comrie, 1985). Klein (2009) defines six devices for expressing time in any

language like tense which is a grammatical feature of verb "to locate the situation in relation to the "now of the speech act", aspect which expresses a complete or incomplete action or situation, the third device is "Aktionsart ("event type", "lexical aspect") describing "the temporal properties of the situations which they describe", temporal adverbial found in almost every language, temporal particles which are used with verb stem to express a kind of aspect and the last device is discourse principles when instead of particular words, temporal relations are expressed and understood through discourse (Klein, 2009). In Urdu two types of time expressions are used: absolute time expression and relative time expression. Absolute time expression is used for describing events or actions happening at specific time like *paNc baje*, "5 o' clock"), *biis aktubar*, بيس اكتوبر ("20 October") etc. while relative time expressions are used for those events or actions whose happenings are understood by context in which it is talked about ("Grammatical Categories and Verbs," 2006).

Four forms of verb are used in Urdu verb morphology which are root like *khel*, روز ("play"), imperfective participle like *kheltA*, کهیلتا (plays), perfective participle like *khelA*, کهیلتا ("played") and infinitive like *khelnA*, کهیلنا ("to play").

2.4.2.2.1 The Root or Verb Stem

The root or stem is a non-tensed, non-finite form of verb which is formed when $nUn \ alif$, ("-nA") suffix is removed from the infinitive. It functions as a main verb only in imperatives. It can be transitive or intransitive, indicating either causative or double (indirect) causative behavior which is called as regular verb and shows tense, mood, aspect, gender and number inflection (Hardie, 2004; Humayoun, 2006). The stems agree with the subject noun in number and gender when used with perfect stem of verb ho, \mathfrak{H} ("to be"), huA, \mathfrak{H} (done), they agree in case as well. It also shows durative aspect including progressive or continuous tenses through separate lexical item rahA, \mathfrak{L} ("ing") which also shows number and gender agreement. Subjunctives, imperatives, future, conjunctive particles are also formed with stem. It is also used with modal verbs and compound verbs. Tense either present or past is expressed with auxiliary verb hE, \mathfrak{L} ("is") and thA, \mathfrak{L} ("was").

• Tense, Aspect and Mood with the Verb Stem

Tense is a morphological phenomenon and aspect is a syntactic phenomenon (Nordquist, 2014). Tense also expresses "the utterance time" or "the moment of speech". Three temporal relations or tenses are past, present, future (Klein, 2009) which can be grammatical or notional. In other words "Tense places a situation in time with reference to some other time..." (Comrie, 1985). The difference between tense and aspect is that tense relates one event with other on the basis of external temporal relationship while aspect expresses the internal temporal relationship of an event (Miller & Cuza, 2013). In other words tense is temporal while aspect is non deictic (Shirai & Andersen, 1995) which is used in the grammatical description of verbs (along with tense and mood), referring primarily to the way the grammar marks the duration or type of temporal activity denoted by the verb (Crystal, 2008).

Aspect expresses an incomplete action, event or activity also with action verbs which is being done temporarily, sometimes for referring to a chain of events. Besides action verbs, some times stative verbs are also used to express incomplete physical or mental state. Similarly the verbs related with sensory perception are used to express that process through progressive aspect. Infinitives can also be expressed through progressive aspect ("Time Tense and Aspect," 2013), on the other hand perfective and imperfective aspects are used "to view" or "to present" one and the same situation and to depict how an event unfolds in time (Klein, 2009).

Aspectual information can be expressed through grammatical and lexical aspects. Grammatical aspect is related with "the internal temporal constituency of a situation". Perfective / imperfective aspects come under grammatical aspect in the world languages. Perfective aspect tells the specific situation in time on the other hand imperfective aspect is not time bound like simple past and progressive. While lexical verbs either telic and atelic are used to show "ontological distinctions" (Chan, Finberg, Costello, & Shirai, 2012).

Grammatical aspect expresses aspect either through inflection or auxiliaries like progressive, perfective and imperfective aspects in different languages while inherent lexical aspect is present in the lexical items inherently like state, activity. It is the inherent aspect of the verbs which shapes the childhood development of tense - aspect morphology that's why in grammatical aspect the development of imperfective past is slower than the perfective past in children (Shirai & Andersen, 1995). In Urdu tense, aspects are independent but mandatory categories. Related with tense and mood, the whole inflection and verb construction revolves around indicative mood (showing present, past and future as hE, ("is"), thA, $\downarrow \downarrow$ ("was"), gA, $\stackrel{[]}{=}$ ("will"), $ho \ gA$, $\downarrow e$ ("will be"), (sometimes) and subjunctive mood of auxiliary verb honA, $\downarrow e \downarrow$ ("may / should"). The present tense and subjunctives of hona, inflect in person [1 (huN, $\downarrow e$) ("am", "may")], 2 [(hE, $e \downarrow$ ("are"), ho, $\flat e$ ("may")], 3 [hE, $e \downarrow$ ("is"), ho, $\flat e$, ("may")] and number [singular huN, $\downarrow e \cup$ ("am") / plural heN, $\downarrow e$ ("are"), hoN, $\downarrow e \cup$ ("may")]. While past tense inflects in gender [masculine (thA, $\downarrow e$) ("was") / feminine (thi, $\downarrow e$ ("was")] and number [singular thA, $\downarrow e$ ("was") / plural the, $e \downarrow$ ("were")]. Future Tense is formed when gA, $\stackrel{[]}{=}$, ge, $\stackrel{[]}{=}$ or gi, $\stackrel{[]}{=}$ is inflected to subjunctive forms (Schmidt, 2007).

• Continuous Tenses (Present, Past)

Continuous tenses having durative or progressive aspect are also formed with verb stem. Continuous participle *rahA*, رب, *rahi*, رب, *rahe*, رب, ("ing") along with inflected auxiliary verb is used according to the subject noun or pronoun's gender and number (Schmidt, 1999; Naim, 1999): e.g.

میں حج پر جا رہا ہوں۔								
mEN	hajj	par	jA					
I.1.M.S.Nomi	pilgrimage.N.M.S.Obli	on.l oc	go					
rah-A hu	N							
Prog-M.S be.	Pr.1.S							
I am going to pilgrin	I am going to pilgrimage. (Pr. cont.)							
وہ حج پر جا رہے ہیں۔								
Vo	hajj	par	jA					
they.3.M.Pl.Nomi	pilgrimage.N.M.S.Obli	on.Loc	go					
rah-e h	EN							
Prog-M.Pl be	e.Pr.3.Pl							
They are going to P	ilgrimage. (Pr. cont.)							

حج پر جا رہی تھی۔	تم حج پر جا رہی تھی۔							
tum	hajj	par	jA					
you. 2.S.Nomi	pilgrimage.N.M.S.Obli	on.Loc	go					
rah-i	th-i							
Prog-F.S	Prog-F.S be.Pst.2.F.S							
You were going	You were going to Pilgrimage. (Pst. cont.)							
حج پر جا ر ہے تھیں۔	> 0 q							
	5							
vo	hajj	par	jA					
vo they. 3.Pl.Nomi	<i>hajj</i> pilgrimage.N.M.S.Obli	<i>par</i> on.Loc	<i>jA</i> go					
vo they. 3.Pl.Nomi rah-i	<i>hajj</i> pilgrimage.N.M.S.Obli <i>thiN</i>	<i>par</i> on.Loc	jA go					
vo they. 3.Pl.Nomi rah-i Prog-F.S	<i>hajj</i> pilgrimage.N.M.S.Obli <i>thiN</i> be.Pst.3.F.Pl	<i>par</i> on.Loc	jA go					

2.4.2.2.2 The Imperfective Participle

The imperfective participle shows imperfective aspect including habitual or imperfective tenses. The perfective and imperfective aspects are expressed through suffixation.

o Tense, Aspect and Mood with the Imperfective Participle

The imperfective or present participle shows habitual aspect (David et al., 2009). In habitual tenses (present, past) the verb stem is used with imperfective participle (*-tA*, *i -te*, *i -ti*, *i -ti*, *i -ti*) along with auxiliary verb (which inflects in person and number) (Schmidt, 1999): e.g.

mEN	hajj	par	jA-tA	huN
I.1.M.S.Nomi	pilgrimage.N.M.S.Obli	on.Loc	go- Imperf.M.S	be.Pr.1.S
I go to Pilgrima	ge. (Pr. hab.)			

2.4.2.2.3 The Perfective Participle

میں حج پر جاتا ہوں۔

The perfective participle shows perfective aspect including perfect tenses. The perfective aspect not only tells about something that happens in past but relates it to the present moment. So it is a link between past and present (Nordquist, 2014).

o Tense, Aspect and Mood with the Perfective Participle

The perfective participle or past participle indicates perfective or punctual aspect (David et al., 2009). It also has an element of definiteness in it which is indicated in simple past where it is used in bare form: e.g.

اس نے اس سال حج کیا ۔						
us	ne	is	sAl			
he.3.S.Obli	Erg	this. DP.S.Obli	year.N.M.S.Nomi			
hajj		ki-yA				
pilgrimage.N.M.S	S.Nomi	do-Perf.3.M.S				
He performed pil	grimage tl	nis year.				

In perfective tenses (immediate past, remote past) the verb stem is used with the perfective participle (-*A*, ¹ -*e*, \geq -*i*, \geq -*iN*, \cup) and inflected form of auxiliary (Schmidt, 1999).

2.4.2.2.4 Infinitives

Urdu infinitives generally contain *nUn alif*, i ("-nA") suffix like [*rEhnA*, ربنا, ("live"), *sonA*, سونا ("sleep") etc.]. By default they are masculine singular but when they are used as verbal nouns, they may function as oblique case. Sometimes they are also used as imperatives giving command or making request that's why they are non aspectual (Schmidt, 1999): e.g.

میں سونا چاہتا ہوں۔								
meN	so-nA		caht-A	huN				
I.1.S.Nomi	sleep-Inf.M.S.N	omi.	want-Imperf.M.S	be.Pr.1.M.S				
I want to sleep. (Inf.M.S.Nomi)								
وہاں جانے سے کچھ نہیں ہوگا۔								
vahAN	jA-ne	se	kuch	nahiN				
there.Adv	go-Inf.Obli	from.Abl	nothing	Neg				
ho	g-A							
be.Subj-3.S	Fut-M.S							
It will happen n	othing to go there	. (Verbal r	oun. Obli)					
میرا یہ کام کرنا۔								
mer-A	ye	kAm		kar-nA				
my-M.S	this.DP.S.Nomi	work	.N.M.S.Nomi	do- Inf.2.M.S				

2.4.2.2.5 Imperatives

Infinitive, verbal stem and subjunctive form can be used as imperatives (request forms) which are of three forms used for second person pronouns [tU, iac AAp, iac iac

o Neutral imperatives-----referring to *tum*, نم ("you"): e.g.

(تم) جانا -	
(tum)	jA-nA
(you-2.Pl.Nomi)	go- Inf.Nomi (Imp.2.Pl)
Go!	
(تو) جا !	
(<i>tU</i>)	jA
(You-2.S.Nomi)	go.V.St (Imp.2.S)
Go!	
(تم) جاؤ!	
(tum)	jA-o
(you-2.Pl.Nomi)	go. Subj.2.Pl (Imp.2.Pl
(You may) Go!	

• Polite imperatives-----referring to AAp, اآپ: e.g.

(AAP)	jA-iye	
(you-2.Pl.Nomi)	go-Imp.2.Pl	
Please go!		

Extra polite imperatives----with the addition of gA, ^(٤) ("-gA"), suffix: e.g.
(أب) جائيے گا!
(AAp) jAa-iye g-A
(you-2.Pl.Nomi) go-Imp.2.Pl Fut.M.S
(you) Please go ! (Naim,1999).

2.4.2.3 Agreement in Urdu Language

Three types of agreement in Urdu are discussed as under.

2.4.2.3.1 Adjectives-Noun Agreement in Urdu Language

Like noun, marked masculine adjectives inflect in case [nominative *choTA*, / plural *choTe*, جهوٹ ("small")], number [singular *choTA*, جهوٹ / plural *choTe*,], gender (masculine *choTA*, جهوٹ / feminine *choTi*, جهوٹ) and respect (without respect *choTA*, جهوٹ / with respect *choTe*, جهوٹ) while unmarked adjectives remain uninflected like *udAs*, الداس ("sad"). If the marked masculine adjective is in nominative case, the noun it modifies will also be in nominative case (without case marker) and it concurs with noun gender and number because it does not have "inherent gender". But if a noun is in plural oblique case, it remains the same. Similarly marked feminine adjectives remain uninflected for noun number and case (Schmidt, 1999; Hardie, 2004). Urdu adjective can function attributively and predicatively.

a) Marked Masculine Urdu Adjective Inflection

Substitution

The Hindi based ending *alif*, ("-A") is substituted to *baRi ye*, \leq ("-e") in marked masculine plural nominative and singular / plural oblique urdu adjectives, while in feminine, singular / plural into *choTi ye*, \leq ("-i") (Platts, 2002; Schmidt, 1999).

Table 2.15	Exampl	les of m	arked c	adjective	inflectional	variation	<i>kAlA</i> , کالا	("black")
	1			,	<i>J</i>			

Sr.	Gender	Numb	er Case	Adjective			
1	Masculine	Singular	Nominative	kAlA,	("black") کالا		
اتا ہے-	کالا بکر ا گھاس کھا						
kAlA	bakr-A		ghAs	khA-tA	hE		
black	goat-N.M.S	.Nomi	grass.N.F.S.Nomi	eat-Imperf.M.S	be.Pr.3.S		
The b	The black goat eats grass.						
2	Masculine	Plural	Nominative	kAle, _	(" black") کالے		
ے ہیں۔	بکرے گھاس کھاتے	کالے ا					
kAl-e	bakr	-е	ghAs	khA-te	hEN		
black	goats-N.N	A.Pl.Nomi	grass.N.F.S.Nomi	at-Imperf.M.Pl	be.Pr.3.Pl		
The b	The black goats eat grass.						
3	Masculine	Singular	Oblique	kAle,	(" black") کالے		

کالے بکرے نے گھاس کھائی ہے۔							
kAle bakr-e	ne	ghAs	A-i	hE			
black goat- N.M.S.Obli	Erg	grass.N.F.S.No	omi eat-Perf.F.	S be.Pr.3.S			
The black goat has eaten gra	ss.						
4 Masculine Plural		Oblique	kAle,	(" black") کالے			
کالے بکروں نے گھاس کھائی ہے-							
kAle bakr-oN	ne	ghAs	khAi	hE			
black goats- N.M.Pl.Obli	Erg	grass.N.F.S.No	omi eat-Perf.F.S	be.Pr.3.S			
The black goats have eaten g	grass.						
5 Feminine Singua	ar	Nominative	kAli,	("black") کالی			
کالی بکری گھاس کھاتی ہے۔							
kAl-i bakr-i	g	hAs	khAt-i	hE			
black goat-N-F.S.Nomi	gras	s.N.F.S.Nomi	eat-Imperf.F.S	be.Pr.3.S			
The black goat eats grass.							
6 Feminine	Plural	Nominative	e kAli,	("black") کالی			
کالی بکریاں گھاس کھاتی ہیں۔	کالی بکریاں گھاس کھاتی ہیں۔						
kAl-i bakr-iaN		ghAs	khAt-i	hEN			
black goats-N.F.Pl.Nomi	gra	ass.N.F.S.Nomi	eat-Imperf.F.S	be.Pr.3.Pl			
The black goats eat grass.							
7 Feminine Singul	ar	Oblique	kAli,	("black") کالی			
کالی بکری نے گھاس کھائی۔							
kAl-i bakr-i	ne	ghAs	khA	i			
black goat- N.F.S.Obli	Er	g grass.N.F	.S.Nomi eat-	Perf.F.S			
The black goat ate grass.							
8 Feminine	Plural	Oblique	kAli,	("black") کالی			
کالی بکریوں نے گھاس کھائی۔							
kAli bakr-ioN		ne ghAs		khA-i			
black goats- N.F.Pl.C	Obli	Erg grassN	I.F.S.Nomi	eat-Perf.F.S			
The black goats ate grass.							

Respect element is also present in adjectives in Urdu and Punjabi languages. Without respect *choTA*, جهوٹا ("small") / with respect *choTe*, جهوٹا ("small"): e.g.

تو چھوٹا ہے -

tU	choT-A	hE
you.2.S.Nomi	young-Adj.M.S.Nomi	be.Pr.2.S
You are young. (Wi	thout respect)	
تم چھوٹے ہو۔		
tum	choT-e	ho
you.2.Pl.Nomi	young-Adj.M.Pl.Nomi	be.Pr.2.S
You are young. With	n respect (familiar)	
آپ چھوٹے ہیں / ہو -		
AAp	choT-e	hEN/ ho
you.2.Pl.Nomi	young-Adj.M.Pl.Nomi	be.Pr.2.Pl / S
You are young. (usua	al)	
آ پ چھوٹ <i>ے</i> تھے-		
AAp	choT-e	the
he.3.Pl.Nomi	young-Adj.M.Pl.Nomi	be.Pst.3.Pl
("He was small"). (e.	xtra)	

The ending a*lif nUn Gunna, الين ("-aN")* is substituted to *eN, الين ("-eN")* in masculine plural nominative, singular / plural oblique and in, *iN, الي ("-iiN")* in all feminine forms (Schmidt, 1999): e.g. *bAyaN, با يا ل ("left") / plural bAeN, با يئ bAiiN, با يا ل kiiN, با يا ر ("left") / with respect bAyAN, بايال with respect bAeN, العار ("left"). e.g.*

بایاں ہاتھ نیچے کرو !						
bAyaN	hAth		niic-e	kar-o		
left-Adj.M.S.Nomi	hand-N.M.S.Nor	ni do	wn-Adj.M.Pl.Nomi	do-Imp.2.S		
Put your left hand d	Put your left hand down! (without respect)					
بائیں ہاتھ کو نیچے کرو !	1					
bAeN	hAth	ko	niic-e	kar-o		
left-Adj.M.S.Obli	hand-N.M.S.Obli	Acc	down-Adj.M.Pl.Nomi	do-Imp.2.S		
Put your left hand down! (with respect)						

But very few adjectives of Arabic and Persian origin fall in this category. Some of the adjectives of Persian origin ending in *gol hey*, • ("–a") are also substituted to *baRiye*,

 \leq ("-e"), in masculine and in feminine *choTi ye*, \leq ("-i"), like adjectives of Hindi origin (Platts, 2002).

2.4.2.3.2 Subject and Object-Verb Agreement in Urdu Language

Verb in Urdu has relatively fixed position in a sentence which means it comes at the end. In intransitive and non-perfective transitive sentences the verb agrees with the subject. In transitive perfective sentences, the verb agrees with the object. If the subject and object both are marked then verb remains unchanged in 3rd person masculine singular (Kachru, 2009).

2.4.3 Phonetic Inventory of Punjabi Language

The phonetic inventory of Punjabi contains 54 phonemes i.e. 32 consonants, 10 oral and 12 nasal vowels (Farooq, 2014).

ι.	Non Asp	iraiea Co	nsonanis (.	27)				
	[b] ب	[p] پ	[ţ] تط	[t] ٹ	[s] ث ،س، ص	ट [फे]	چ [ʧ]	
۲'	h] م، ه	ċ[x]	[ǎ] د	[b] ځ	:، ز، ژ، ظ، ض [z]	[r] ر	[ŋ] ڈ	
	[ر] ش	[٢] غ	[f] ف	[k] ق،ک	[g] گ	[1] ل	[]] ڭ	
	[m] م	[n] ن	[ŋ] ٹ	[ŋ] ن	v], [w] و	[j] ی، ے		
ii.	ii. Aspirated Consonants (5)							
	[p ^h] پھ		[tʰ] تھ	ٹھ	ډ ه] (t ^h]	[ʧʰ]	[k ^h] کھ	
iii.	Vowels (10)						
	آ [a:]		[I:] اِی] أو	او [u:]	[ɔ:]	[٤:] آے	
	[e] ۱		[I] ای	او	او [ʊ]	[0]	[e] الے	
iv.	iv. Nasal vowels (12)							
	[ã:] أْن	;] این	يں [æ	[Ĩ:]	ں [ĩ] ایںِ	[ũ:] أو ر	ٽ أ [ῦ]	
	[ē:] ایں] ایں	وں [ē	ó [ə̃]	ن [õ:] أوں	[3:] او	[æ̃:] ایں	

i. Non Aspirated Consonants (27)

2.4.4 Punjabi Morphosyntax

The developmental process of Old Indo Aryan (OIA) to New Indo Aryan (NIA) shows that OIA was morphologically complex but syntactically because of difference

in the structure, was simple than NIA. Grammatically OIA was called "a highly synthetic language" which means the extensive use of prefixes and suffixes, affixes (instead of auxiliaries), different gender (masculine, feminine, neuter) and number (singular, dual, plural) inflection. Even case inflection exceeded to eight forms of word classes was given much importance than position (Singh, 2014).

Grammatically 'Pali' was similar to OIA with the difference in number inflection into two (singular, plural) and six case inflections. Then comes 'the Pratrits' which is somewhat "less synthetic" than the previous forms with only four case inflections. Then comes 'Apabhramshas', more analytical with the use of postpositions, auxiliary verb and three case inflections (Singh, 2014).

Classical Punjabi present in the form of poetry of Shaikh Farid (1175 - 1265) and Guru Granth Sahib, a sikh scripture of five Gurus (1469 - 1606) was linguistically analytical, auxiliary again disappeared, but the use of suffixes, postpositions and case inflection was a common process (Singh, 2014).

Medieval Punjabi was grammatically almost similar to Modern Punjabi with the addition of tone as it was again in poetic form with little work in prose. But the arrival and establishment of the British, printing press and the publication of newspapers and journals revolutionized the Punjabi language in the form of long complex sentences. In this period planned development was given importance instead of natural development (Singh, 2014).

Like other New Indo Aryan languages, Modern Punjabi developed in around 10 -11 Century. Modern Punjabi is grammatically more analytical than the previous forms, the suffixation till four morphemes is a common phenomenon rather than the use of prefixes, five degrees of proximity like AAa, \overline{e} , -hAA, \underline{e} , -ea, \underline{e} , -aua, \underline{e} , -ou, \underline{e} , -ou, \underline{e} , -ou, \underline{e} , -ou, \underline{e} , -aua, \underline{e} , \underline{e} ,

2.4.4.1 Noun Inflection in Punjabi language

Punjabi is closely related to Urdu that's why its more "structural influence" on Urdu can be observed (Butt, 1995). Like Urdu nouns, Punjabi nouns also inflect in gender, number and case.

Punjabi gender system is also similar to Urdu language which is realized through two values of masculine [ghoRA, كَبُورْ ("horse")] / feminine [ghoRi, كَبُورْ ("mare")]. Bhatia (1993) also discussed the Punjabi gender feature of markedness or unmarkedness but the other way round.

In Punjabi, number category inflects in two contrasts i.e. as singular [ghoRA, "كبوژ" ("horse")] and plural [ghoRe, كبوژ ("horses")].

While Punjabi noun inflects in five cases such as nominative [ghoRA, [شهوڑا ("horse")] / oblique [ghoRe, گهوڑے ("horse")] / vocative [ghoReA, گهوڑے ("o horse")] / ablative [ghoReoN, گهوڑیوں ("from horse")] and locative / instrumental which is rare in use [(skule, 2007; Kaur, 2012). Vocative case sometimes neglects its ending like ghoRe, 2007; Kaur, 2012). Vocative case sometimes neglects its ending like ghoRe, گهوڑے ("horse") (Commings & Bailey, 2005) But different linguists classified cases differently. On the basis of case markers or clitics Punjabi cases are:

Case	Clitic forms	Morphological change	Grammatical function
Nominative		Same (no change)	Subject, direct object
Oblique		Nominative or its any	Locative & Temporal
		other form	object
Ergative	ne	Oblique + ne	Subject
Accusative	nuN	Oblique + nuuN	Direct object
Dative	nuN	Oblique + (nuuN)	Subject, indirect object
Instrumental/	nAl	Oblique + naal	Instrumental, Temporal
Temporal			object
Genitive	da, de, di	Oblique + (da, de, di)	Possessive relation
			(between two nominals)
Locative	ic, vic, te,kol,	Oblique + (ic, vic)	Locative object
			(oblique argument)

Table 2.16 Punjabi Cases

Vocative	e, o, or	ae + oblique or its other	Direct address
	nothing	form	
Ablative	oN, toN	Oblique + (oN,toN)	Movement from source,
			cause etc.

2.4.4.1.1 Masculine Suffixation

Four ways of noun inflection through markedness and unmarkdness are:

a) Marked Masculine Suffixation

i. Substitution

Marked masculine singular nominative ending in *alif*, ("-A") or *alif nUn Gunna*, ("-aN"), is substituted by *baRi ye*, ("-e") during the formation of nominative plurals and singular oblique (Cummings & Bailey, 2005; Tolstaya, 1981): e.g.

ghoRA, گھوڑ ("horse") - ghoRe, گھوڑ ("horses"), lelA, لیلے ("goat") - lele, لیلے ("goats").

Sr.	Gender	Number	Case	Noun			
1	Masculine	Singular	Nominative	lelA, ليلا ("goat")			
لیلا گھا کھاندا اے۔							
lel-A	ghAa		khan-dA	е			
goat	grass.l	N.M.S.Nomi	eat-Imperf.M.S	be.Pr.3.S			
The goat eats grass.							
2	Masculine	Plural	Nominative	lele, البلے ("goats")			
ے نیں۔	لیلے گھا کھاندے نیں۔						
lel-e	ghAa		khan-de	neN			
goats	grass.N	I.M.S.Nomi	eat-Imperf.M.Pl	be.Pr.3.Pl			
The g	oats eat gras	s.					
3	Masculine	Singular	Oblique	lele, البلے ("goats")			
دا اے-	لیلے نے گھا کھا دا اے۔						
lel-e	ne g	hAa	khAd-A	е			
goat	Erg g	grass.N.M.S.Nomi	eat-Perf.M.S	be.Pr.3.S			

Table 2.17 Examples of marked noun inflectional variation lelA, ليلا ("goat")

ii. Addition

In the formation of plural oblique *alif nUn Gunna*, الى ("-aN") is added (Cummings & Bailey, 2005; Tolstaya, 1981): e.g.

4	Masculine	Plural	Oblique	leleaN,	("goats") ليلياں	
ادا اے-	لیلیاں نے گھا کھ					
lel-ea	N ne	ghAa		khAd-A	е	
goats	Erg	grass.N.M.S	.Nomi	eat-Perf.M.S	be.Pr.3.S	
The goats have eaten grass.						

ghoReaN, ليليان ("horses"), leleaN, ليليان ("goats").

While in the formation of masculine singular vocative case *alif*, ("-A") and in masculine plural vocative *vao*, ("-o") is added respectively to the singular oblique (Cummings & Bailey, 2005; Tolstaya, 1981): e.g.

ghoReA, ليليا ("horse"), leleA, ليليا ("goat").

5	Masculine	Singula	ar Voc	ative	leleA, ليليا ("Goat")
; جا۔	ليليا! بهج				
lel-er	A! bl	hajj	jA		
o goa	at ru	ın	go-Imp.2.S		
O go	at! run / go a	way.			

Plural vocative becomes *ghoReo*, گھوڑيو ("horses"), *leleo*, ليليو ("goats").

6	Masculi	ne	Plural	Vocative	Leleo, ليليو ("Goats")	
ئ جاؤ -	ليليو ! بهج					
leleo	!	bhajj	jA-o			
o goa	ats	run	go-Imp.2.F	2]		
O go	O goats! go away.					

b) Unmarked Masculine Suffixation

i. Without Inflection

Unmarked masculine singular nominative nouns ending in "non- A" remain uninflected in nominative plurals, or singular oblique (Cummings & Bailey, 2005; Tolstaya, 1981): e.g.

kukaR, ککڑ ("cock").

Table 2.18 Example	les of unmarked	noun inflectional	variation kukaR. ککڑ	("cock")
1 4010 2 110 2 1100 p			,	,,

Sr.	Gender	Number	Case]	Examples			
1	Masculine	Singular	Nominative		<i>kukaR, ککڑ</i> ("cock")			
ا اے-	ککڑ شور پاند							
kuka	R shor	pAn-dA		е				
cock	noise	make-Imp	berf.M.S	be.Pr.3.S				
The	The cock makes a noise.							
2	Masculine	Plural	Nominative		kukaR, ککڑ ("cock")			
، نیں۔	ککڑ شور پاندے نیں۔							
kuka	R shor	pAnd-e		neN				
cock	s noise	make-Imperf.M.Pl		be.Pr.3.	Pl			
The	cocks make a n	oise.						
3	Masculine	Singular	Oblique		<i>kukaR, ککڑ</i> ("cock")			
ِ پايا۔	ککڑ نے شور							
kuka	eR ne	shor pA	-yA					
cock	Erg	noise mal	ke-Perf.M.S					
The	The cock made a noise.							

Addition

But in the formation of plural oblique *alif nUn Gunna*, \cup ("-aN") in singular vocative *alif*, \uparrow ("-A") and in plural vocative *vao*, \downarrow ("-o") is added (Cummings & Bailey, 2005; Tolstaya, 1981): e.g.

kukaR, ککڑ ("cock") - kukaR, ککڑ ("cock") - kukaRA, ("o cock"). (S) kukaR, ککڑ ("cock") - kukaRaN, ککڑ ("cocks") - kukaRo, ککڑ ("cocks"). ("o cocks"). (Pl)

4 Masculine	4 Masculine Plural O		Oblique	kukaRaN, ككڑاں ("cocks")			
کڑاں نے شور پایا۔	ککڑ اں نے شور پایا۔						
KukaR-An	ne shor	pA	-уА				
cocks	Erg nois	e ma	ake-Perf.M.S				
The cocks made	e a noise.						
5 Masculine	Singula	r	Vocative	kukaRA, ككڑا ("cock")			
ککڑا! شور نہ پا۔							
kukaRA!	shor	nA	pA				
o cock	noise	Neg	mak-Imp.2.S				
O cock! do not	make a noise	e .					
6 Masculir	<i>kukaRo, ککڑ</i> و ("Cocks")						
ککڑو! شور نہ پاؤ-							
kukaRo!	shor	nA	pA-o				
o cocks	noise	Neg	mak-Imp.2.Pl	l			
O cocks! do not make a noise.							

2.4.4.1.2 Feminine Suffixation

a) Marked Feminine Suffixation

Addition

The difference between Urdu and Punjabi marked feminine singular suffixation is that in Punjabi feminine singular in vocative case add baRi ye, ("-e") in marked singular ending in *choTi ye*, ("-i"): e.g.

Sr.	Gender	Number	Case	Noun			
1	Feminine	Singular	Nominative	("goat") ليلى Leli, ليلى			
اے-	لیلی گھا کھاندی اے۔						
leli	ghAa		khan-di	е			
goat	t grass.N.M.S.Nomi		eat-Imperf.F.S	be.Pr.3.S			
The goat eats grass.							
2	Feminine	Singular	Oblique	Leli, ليلى ("goat")			

Table 2.19 Examples of unmarked noun inflectional variation leli, ليلى ("goat")

کھادا۔	ی نے گھا ک	ليل					
leli	ne		ghAa		khA-dA		
goat	Erg	3	grass.N.M.S.N	lomi	eat-Perf.M.S		
The	goat ate	grass.					
3	Femini	ne	Singular	Vocative		lelie, ليليے ("Goat")	
الے-	ے! گھاکھ	ليلي					
leli-	e!	ghAa		khA	lE		
o go	at	grass.l	N.M.S.Nomi	eat	take-Imp.2.S		
O go	O goat! eat grass.						

In the formation of plural nominative and oblique *iyaN*, الياں ("-iaN") is added (Cummings & Bailey, 2005; Tolstaya, 1981): e.g.

4	Feminin	e	Plural	Nominativ	e	leliaN, ليلياں ("goats")	
نیں۔	گها کهاندیاں ا	لیلیاں گ					
lel-	iaN	ghAd	a	khAnd-	iaN	neN	
goa	its	grass	.N.M.S.Nomi	eat-Imp	erf.F.Pl	be.Pr.3.Pl	
The	The goats eat grass.						
5	Feminin	e	Plural	Oblique		leliaN, ليلياں ("goats")	
هادا_	ں نے گھا کھ	ليليا					
lel-	iaN r	ıe	ghAa		khA-dA		
goa	its l	Erg	grass.N.M.S	S.Nomi	eat-Perf.N	A.S	
The	The goats ate grass.						

leliaN, ليليان ("goats") etc.

While the plural vocatives are formed with the addition of *iyo*, ايو ("-io") to singular nominative case (Cummings & Bailey, 2005; Tolstaya, 1981): e.g.

6	Feminine	Plural	Vocative		lelio, ليليو ("goats")			
• •	<u></u>							
الو_	ليليو! كها كه							
				-				
leli	0!	ghAa	khA	lo				
o go	oats	grass.N.M.S.Nomi	eat	Imp.2.Pl				
~								
O g	oats! eat gra	SS.						

lelio, اليليو (" o goats") etc.

b) Unmarked Feminine Suffixation

Unmarked feminine singular nominative ending in *alif nUnGunna*, الى ("-aN") generally adds *baRi ye*, (("-e") in feminine singular vocative case: e.g.

maN, ماں ("mother") - *maN*, ماں ("mother") - *maNe*, مائے ("o mother").

Sr.	Gender	Number	Case	Noun				
1	Feminine	Singular	Nominative	maN, ماں ("mother")				
اے-	ماں روٹی پکاندی							
maN	l roTi		pakAn-di	е				
mot	her bread	.N.F.S.Nom	i bake-Imper	f.F.S be.Pr.3.S				
The mother bakes bread.								
2	Feminine	Singular	Oblique	maN, ماں ("mother")				
كائى-	ماں نے روٹی پکائی۔							
maN	l ne	roTi	pakA	-i				
mot	her Erg	bread.N.	F.S.Nomi bake-	Perf.F.S				
The	mother baked bro	ead.						
3	Feminine	Singular	Vocative	("mother") مائے maNe,				
دے۔	بئے مائے! روٹی پکا	او میر						
0	mer-ie	maNe	roTi	pakA de				
0	my-F.S.Voca	mother	bread.N.F.S.Nomi	bake give-Imp.2.S				
("O	("O my mother! Bake bread").							

("mother") ماں Table 2.20 Examples of unmarked noun inflectional variation maN, ماں

Plural nominative and oblique are formed with the addition of *vao nUn alif*, والى ("vaN") to singular nominative (Cummings & Bailey, 2005; Tolstaya, 1981) : e.g.

maNvaN, مانواں - maNvaN, مانواں ("mothers").

4	Feminine	Plural	Nominative	انواں ,maNvaN	("mothers") م
نیں۔	اں روٹیاں پکا ندیاں	مانو			
mai	N-vaN	roT-iaN		pakAnd-iaN	neN
mo	thers	breads-N.F.Pl.N	Nomi	bake-Imperf.F.Pl	be.Pr.3.Pl
The	mothers bake b	oreads.			

5	Feminine	9	Plural	Oblique	("mothers") مانوان (mothers")		
ائياں	ے روٹیاں پک	مانواں نے					
mal	V-vaN	ne	roT-iaN		pakA-iyaN		
mot	thers	Erg	breads-N.F.Pl.N	Nomi	bake-Perf.F.Pl		
The	The mothers baked breads.						

Plural vocative is formed when *vao*, و ("-o") is added to singular nominative (Cummings & Bailey, 2005; Tolstaya, 1981):e.g.

	maN, ماں ("mother") - $maNo$, مان ("o mothers").					
6	6 Feminine Plural		Vocative	maNo	(mothers'') ماؤ (mothers)	
ديو ـ	میریو ماؤ! روٹیاں پکا	نی				
ni	mer-io	maNo	roT-iaN	pakA	deo	
0	my-F.Pl.Voca	mother	breads.N.F.Pl.Nomi	bake	give-Imp.2.Pl	
0 m	y mothers! Bake	breads.				

But some of the unmarked feminine ending *alif*, '("-A") or *alif nUnGunna*, الى ("-aN") adds *iN*, الي ("-iN") in making nominative plurals (Cummings & Bailey, 2005): e.g.

7 Feminine	Singular	Nominative	duA, دعا ("prayer") دعا
	U		
میں دعا کیتی ۔			
mEN	duA	kii-ti	
I.1.S.Nomi	prayer	do-Imperf-F.S	
I begged prave	•		
i beggea piajei	•		
8 Feminine	Plural	Nominative	("prayers") دعائيں ,duAiN
رعائیں کرتیاں نیں۔	(1)4		
	مين		
meN	duA-iN	kiit-iaN	neN
I.1.S.Nomi	prayers	do-Imperf.F.Pl	be.Pr.3.Pl
I have begged r	nany pravers.		

duA, دعائيں ("prayer") - *duAiN*, دعا ("prayers").

While their oblique formation is the same as mention earlier i.e. *alif nUnGunna*, وال ("-vaN"): e. g.

9	Feminine	Plural	Ot	blique duA	vaN, دعاواں ("prayers")
کیتا ۔	دعاواں نے جادو ک	میریاں			
mer	-iaN	dua-vaN	ne	jAdU	kii-tA
I.1.I	Pl.Obli	prayers	Erg	magic.N.M.S.Nomi	do-Imperf.M.S
My	prayers did ma	agic.			

Some of the unmarked feminine singular nominative which end in "non -i" form or in "-A", "-aN" or "-ah" add *iN*, u_{a} "-iN" in making plural nominatives but in plural oblique alif *nUnGunna*, u ("-aN") is added to singular nominative (Cummings & Bailey, 2005): e.g.

```
rAt, راتيں ("night") - rAtiN, راتيں ("night").
```

Table 2.21 <i>Examples</i>	of unmarkea	l noun inflectional	variation rAt,	، رات	("night")
- ··· · · · · · · · · · · · · · · · · ·					

Sr.	Gender	Number	Case		N	Dun
1	Feminine	Singular	Nominati	ve	rA	<i>t, رات ("night ")</i>
اے-	اج رات کالے					
ajj		rAt	kAl-i			е
toda	y.Adj.F.S.Nomi	night	black-A	dj.F.S.Nomi		be.Pr.3.S
Toda	ay the night is da	ark.				
2	Feminine	Plural	Nominat	ive	rAtiN,	("nights").
آئی-	ِاتیں مینوں نیندر نہ	پنج ر				
panj	rAt-iN	mE-nuN	niinda	ar	nA	A-i
five.	num nights	me.1.S.Obli	sleep.	N.F.S.Nomi	Neg	come-
Perf	.F.S					
Icou	ld not sleep for i	many nights.				
3	Feminine	Plural	Oblique	2	rAtaN	("nights") راتاں
نیں۔	او راتاں نوں أندے					
0		rAt-aN	nuN	AAund-e		neN
they	.3.Pl.Nomi	nights	Acc	come-Imper	f.M.Pl	be.Pr.3.Pl
They	v come at night.					

2.4.4.2 Verb Inflection in Punjabi Language

Verbal structure in Punjabi language is also a complex system. Three types of verbal sentences are found in Punjabi which are simple, conjunct (noun + simple) and compound. Simple verbs have transitive, intransitive or ditransitive stem form which can be either simple causative or double (indirect) causative. Punjabi verbs either in stem form or causative, inflect in tense / mood (subjunctive, perfective and imperfective), person (1st, 2nd (casual, formal), 3rd (proximal, distal), number (singular / plural) and gender (masculine / feminine) (Humayon & Ranta, 2010). Punjabi main verb has almost 48 distinct forms. "Punjabi verbs inflect for Tense and Aspect" (Chan, Finberg, Costello & Shirai, 2012).

Stem. Continuous tenses (present, past) are formed with verb stem.

The Imperfective Particle: Habitual tenses (present, past)

The Perfective Participle: Immediate past, remote past.

2.4.4.2.1 The Root or Verb Stem

• Continuous Tenses (Present, Past)

The Continuous auxiliary marker *rihA*, لريبا ("-rihA") and auxiliary *alif baRi ye*, ("-e"), *siin choTi ye*, سی ("-se") is used along with participle of the specific verb which inflect in person and number like *AA rihA haN*, آ ريبا بال ("is coming"), *A rihA saN*, آ ريبا سال ("was coming") (Tolstaya, 1981; Let's learn Punjabi, 2014). Unlike Urdu, Punjabi has only two continuous tenses (Present, Past).

میں جا ریہا ہاں ۔			
mEN	jA	ri-hA	haN
I.1.M.S.Nomi	go	Prog-M.S	be.Pr.1.S
I am going. (Pr. con	nt.)		
او جا ر يھے نيں -			
0	jA	re-he	neN
they.3.M.Pl.Nomi	go	Prog-M	I.Pl be.Pr.3.Pl
They are going. (Pr	: cont.)		
میں جا ریہا ساں ۔			
meN	jA	rihA	saN
I.1.M.S.Nomi	go	Prog-M.S	be.Pst.1.S
I was going. (Pst. c	ont.)		

تسی جا ریھے سوں ۔				
tusii	jA	re-he	soN	
you.2. Pl. Nomi	go	Prog-M.Pl	be.Pst.2.Pl	
Van mana anima (Dat				

2.4.4.2.2 Verb Construction with the Imperfective Participles

The imperfective participle shows habitual aspect except irrealis or unspecified habitual - contrafactual like *khAndA*, کهاندا ("eats") where bare participle form without auxiliary is used (Tolstaya, 1981; Let's learn Punjabi, 2014).

In Punjabi habitual tenses (Present, Past) the Verb phrase structure is: Verb stem + Imperfective Participle (-dA ، -de, -de, -di, -diyA, (-diyA, -diyA) + auxiliary verb (inflected in person and number).

2.4.4.2.3 Verb Construction with the Perfective Participle

The perfective participle expresses perfect tenses. In perfect or pluperfect tenses with intransitive verbs, auxiliary agrees with the subject or nominative but with transitive verb auxiliary agrees with the object (Cummings & Bailey, 2005). Except simple past or unspecified perfective, in perfective tenses, (immediate past, and remote past) the structure is:

Verb stem + the perfective participle (-iA, $|_{-}Ai$, -Ai, -Ae, -Ae) and inflected form of auxiliary.

2.4.4.2.4 Infinitives

Punjabi infinitives *jAnA*, جانا (" to go") are considered as the basic form of the verb. They inflect like nouns or adjectives in gender and number, in case as nominative with the addition *of nUn alif nA*, ن ("-nA") to the root and oblique with the addition of *alif nUn*, *ii* ("-an") (Tolstaya, 1981; Cummings & Bailey, 2005). They may be used as gerund also (Cummings & Bailey, 2005).

میں		
skUl	jA-nA	chAuN-dA
school.N.M.S.Nomi	go-Inf.Nomi	want-
	میں <i>skUl</i> school.N.M.S.Nomi	میں skUl jA-nA school.N.M.S.Nomi go-Inf.Nomi

be.Pr.1.S

I want to go to school.	
اہ کتاب بڑ ھن لگا ا ہے۔	

او					
kitAb	paRh-an	!	lagg-		
book.N.F.S.Nomi	read- In	f.Obli	begin	n-Perf.M.S	
ad.					
cang-A		hon-dA		e	
good-Adj.M.S .	Nomi	be-Imperf.N	1.S	be.Pr.3.S	
l"). (Gerund)					
	⁹ <i>kitAb</i> book.N.F.S.Nomi ad. <i>cang-A</i> good-Adj.M.S . I''). (Gerund)	<i>kitAb paRh-an</i> book.N.F.S.Nomi read- In ad. <i>cang-A</i> good-Adj.M.S .Nomi	<i>kitAb paRh-an</i> book.N.F.S.Nomi read- Inf.Obli ad. <i>cang-A hon-dA</i> good-Adj.M.S .Nomi be-Imperf.M	kitAb paRh-an lagg- book.N.F.S.Nomi read- Inf.Obli begir ad. cang-A hon-dA good-Adj.M.S .Nomi be-Imperf.M.S	kitAb paRh-an lagg- book.N.F.S.Nomi read- Inf.Obli begin-Perf.M.S ad. cang-A hon-dA e good-Adj.M.S .Nomi be-Imperf.M.S be.Pr.3.S I''). (Gerund)

2.4.4.2.5 Imperatives

•

Imperatives are inflected in number, person, degree of politeness (Bhatia, 1993). Simple imperatives are based on the stem of the verb in 2nd person singular while plural is formed with the addition of *vao*, \mathfrak{g} ("-o"). In Majhi dialect, polite imperatives are formed with the addition of *choTi ye*, \mathfrak{g} ("-i") in singular and "-eo", \mathfrak{g} ("-i") to the plural (Tolstaya, 1981) while in extra polite imperatives *jiim baRi ye*, \mathfrak{g} ("-je") is often used as *'kareo je*, \mathfrak{g} ("do") Bhatia, 1993) :e.g.

• Simple imperative - referring to *tuN* as singular: e.g.

(توں) روٹی کھا !		
(tuN)	roTi	khA!
(you.2.S.Nomi)	bread.N.F.S.Nomi	eat-V.St. (Imp.2.S)
Eat bread!		

Simple imperative --- referring to *tusi, نس*ی ("you") as plural: e.g

(تسى) روڻي کھاؤ!		
(tus-i)	roTi	khA-o
(you.2.Pl.Nomi)	bread.N.F.S.Nomi	eat -Subj.2.Pl (Imp.2.Pl)
(You should) Eat l	bread!	

as singular: e.g. توں Polite imperatives---referring to tuN

(توں) روٹی کھائیں!		
(tuN)	roTi	khA-iN
(you.2.S.Nomi)	bread.N.F.S.Nomi	eat-Imp.2.S
(You may) Eat bread!		

Polite imperatives --- referring to tusi as plural: e.g.

) روٹی کھائیو / کھایو!	(تسی	
(tu-si)	roTi	khA-io or khAeo,
(you.2.Pl.Nomi)	bread.N.F.S.Nomi	eat- Imp.2.Pl
Please eat bread!		

Extra polite imperatives --- with the addition of "-je" suffix: e.g.

تسی) روٹی کھائیؤ جے !)		
(tu-si)	roTi	khA-eo	je
(you.2.Pl.Nomi)	bread.N.F.S.Nomi	eat-Imp.2.Pl	Fut. 2.Pl
Please eat bread!			

2.4.4.3 Agreement in Punjabi Language

2.4.4.3.1 Adjectives-Noun Agreement in Punjabi Language

Like noun, marked masculine adjectives inflect in case [nominative *vaDDA*, الأولاً ("big"), oblique *vaDDe*, ϵ_{-}^{\pm} ("big")], number [singular *vaDDA*, ϵ_{-}^{\pm} ("big") / plural *vaDDe*, ϵ_{-}^{\pm} ("big")] and gender [masculine *vaDDA*, ϵ_{-}^{\pm} ("big") / feminine *vaDDi*, ϵ_{-}^{\pm} ("big")] and respect [(without respect *vaDDA*, ϵ_{-}^{\pm} ("big") / with respect *vaDDe*, ϵ_{-}^{\pm} ("big")] while unmarked adjectives remain uninflected like *hushyAr*, ϵ_{-}^{\pm} ("clever"). The difference in Punjabi and Urdu adjective noun agreement is that not only in nominative but in oblique case Punjabi adjectives can also inflect while in vocative case adjective follows noun like *vaDDea lelea*, ϵ_{-}^{\pm} ("big goat") and it concurs with noun gender and number because it does not have "inherent gender". Similarly marked feminine adjectives also inflect for noun number and case. Punjabi adjective generally function attributively (Cummings & Bailey, 2005; Overview of Punjabi Grammar, 2016; Masica, 1993).

a) Marked Masculine Punjabi Adjective Inflection

Substitution

The ending *alif*, '("-A") is substituted to *baRi ye*, \leq ("-e") in marked masculine plural nominative and singular oblique and in *eaN*, الجا ں ("-eaN") in plural oblique punjabi adjective, while in feminine, singular into *choTi ye*, \leq ("-i") and plural in *iaN*, الجا ں ("-iaN").

Sr.	Gender	Number	Case	Adjecive
1	Masculine	Singular	Nominative	e nikkA, نکا ("young")
ا ا	کا لیلا گھا کھاند	i		
nikkA	4	lel-A	gh.	Aa
smal	1	goat-N.M.S.Nomi	gr	ass.N.M.S.Nomi
khan	-dA	е		
eat-I	mperf.M.S	be.Pr.3.S		
The	small goat ea	ts grass.		
2	Masculine	e Plural	Nominati	ve nikke, نکے ("young")
ے نیں۔	لیلے گھا کھاند <u>ہ</u>	نکے		
nikke	2	lel-e	8	hAa
smal	1	goat-N.M.Pl.Nomi	g	rass.N.M.S.Nomi
khAn	n-de	neN		
eat-I	mperf.M.Pl	be.Pr.3.Pl		
The	small goats e	at grass.		
3	Masculine	Singular	Oblique	nikke, نکے ("young")
ا اے۔	لے نے گھا کھاد	نکے لی		
nikke	e l	lel-e	ne	ghAa
smal	1 g	oat-N.M.S.Obli	Erg	grass.N.M.S.Nomi
khAa	l- A	е		
eat-P	Perf.M.S	be.Pr.3.S		
The	small goat ha	s eaten grass.		
4	Masculine	Plural	Oblique	nikkeaN, نکیاں ("small")
ا ا	اں نے گھا کھا د	نكياں ليلي		
nikk-	eaN l	lel-eaN	ne	ghAa

Table 2.22 Examples of marked adjective inflectional variation nikkA, نكا ("young")

small	goat-N.M.Pl.C	Obli	Erg	grass.N.M.S.I	Nomi
khAd- A	е				
eat-Perf.M.S	be.Pr.3.S				
The small goat	ts have eaten gras	SS.			
5 Feminine	e Singular	No	minative	nikki,	("small") نکی
ی گھا کھاندی اے۔	نكى ليل				
nikk-i le	l-i	ghAa		khAnd-i	е
small go	at-N.F.S.Nomi	grass.N.M	I.S.Nomi	eat-Imperf.F.S	be.Pr.3.S
The small she	goat eats grass.				
6 Femir	nine Plural	N	ominative	nikkeaN,	نكياں
("small")					
گھا کھاندیاں نیں۔	نكياں ليلياں				
Nikk-iaN l	el-iaN	ghAa		khAnd-iaN	neN
small go	oat-N.F.Pl.Nomi	grass.N.M	I.S.Nomi	eat-Imperf.F.Pl	be.Pr.3.Pl
The small goa	ats eat grass.				
7 Feminine	e Singular	Ob	lique	nikki,	("small") نکی
یلی نے گھا کھادا۔	نکی ا				
nikk-i lel	- <i>i</i>	ne gl	hAa	khAd-A	
small goa	t-N.F.S.Obli	Erg gr	ass.N.M.S.	Nomi eat-Per	f.M.S
The small goat	eats grass.				
8 Feminine	e Plural	Ob	lique	nikkeaN, (("small") نکیاں
باں نے گھا کھا دا۔	نكياں ليلي				
nikk-iaN	lel-iaN	ne	ghAa	kh	Ad-A
small	goat-N.F.Pl.Obli	Erg	grass.N.M	I.S.Nomi ea	t-Perf.M.S
The small goat	ts ate grass.				

Respect element is present in Punjabi adjectives also: e.g.

nikkA,نكا ("young"). without respect

توں نکا ایں۔		
tuN	nikk-A	eN
you.2.S.Nomi	young-Adj.M.S.Nomi	be.Pr.2.S
You are young. (Without respect)	
نسی نکے او-		
--------------------------	---------------------	-------------
tu-si	nikk-e	0
you.2.Pl.Nomi	young-Adj.M.Pl.Nomi	be.Pr.2.Pl
You are young. With resp	pect (familiar)	
آپ جي نکے او-		
AAp ji	nikk-e	0
you.2.Pl.Nomi	young-Adj.M.Pl.Nomi	be.Pr.2.Pl
You are young. (usual)		
آپ نکے سن۔		
AAp	nikk-e	san
he.3.Pl.Nomi	young-Adj.M.Pl.Nomi	be.Pst.3.Pl
He was young. (extra)		

The ending *alif nUnGunna*, الى "-aN" is substituted to *eN*, الي ("-eN") in masculine plural nominative, singular / plural oblique and in *iN*, الي ("-iiN") in singular and *iyaN*, الي ("-iaN"), in plural feminine forms (Tolstaya, 1981): e.g.

Masculine Singular *niivaN*, نيوان ("low") / plural *niiveN*, نيويان ("low") Feminine Singular *niiviiN*, نيوين ("low") / plural *niiviaN*, نيويان ("low").

Respect element is also present in this rule: e.g.

_

_

niivAN. without respect

niiveN. with respect

نيواں پکھا چک!			
niiv-aN	pakhA	cuk	
low-Adj.M.S.Nomi	fan.N.M.S.Nomi	lift.I	mp.2.S
Lift the low fan! (With	out respect)		
نيواں پکھا چک!			
niiv-aN	pakhA	cuk	
low-Adj.M.S.Nomi	fan.N.M.S.Nomi	lift.I	mp.2.S
Lift the low fan! (With	out respect)		
نیویں پکھے نوں چکو !			
niiv-eN	pakh-e	nuN	cukk-o
low-Adj.M.S.Obli	fan-N.M.S.Obli	Acc	lift-Imp.2.Pl

2.4.4.3.2 Subject & Object-Verb Agreement in Punjabi Language

Canonical word order in Punjabi is subject-object-verb and verb generally agrees with the subject (Thompson, 2013). It has relatively fixed word order but is called "split ergative language" like Urdu because of number of agreement patterns (Bhatia, 2000). The verb agrees with the nominative subject in gender, number and person while in perfective participle of a transitive verb, it agrees with the object in gender and number but if the sentence does not contain nominative subject or object, the verb behaves like Urdu verb as masculine singular 3rd person (Tolstaya, 1981; Overview of Punjabi Grammar, 2016).

CHAPTER 3

3 METHODOLOGY

The approach or method is crucially linked to the kind of research question or problem under investigation, to the purpose of the study (e.g. exploratory, interpretive, descriptive, explanatory, confirmatory, and predictive) and to the type of data and population one is working with (Duff, 2010).

This is an exploratory research as it attempts to explore the developmental sequence of morphosyntax of children acquiring Urdu and Punjabi as first language where quantitative findings or results can be useful for qualitative judgement. Punch (1998) thought that qualitative research facilitates the researcher to make a connection between the context and the respondents and it gives an insight to the researcher to delve deep into the matter and find out the background information important for the interpretation of numerical data. This research is qualitative in a sense that qualitative research involves observation and it is quantitative because it involves the analysis of observations and collection of data and comes to a conclusion (Jackson, 2014).

3.1 Design for this Study

Cross-sectional studies are used to get useful information in shorter period of time that is why they are called "single-point-in-time survey" (Mullner, 2009). Cross-sectional research method is used not only in developmental psychology but also in social sciences and education. Cross-sectional research due to "observational in nature" (Cherry, 2016) is called as descriptive research which is different from causal or relational research because this particular research is trying to describe the developmental sequence of morphosyntax of Urdu and Punjabi bilingual children that is why it is a descriptive research also (Cherry, 2016).

For this type of research different experimental methods are also prevailing in which production methods like repetition / elicited imitation, syntactic priming / weird word order and elicited production are used by the modern researchers. These elicited production methods range from unstructured or uncontrolled to most structured or

controlled methods. A child can be shown a picture, video or live enactment and asked simple questions related to these pictures, video or enactment. While for getting desired results or information the child can be asked specific, more controlled or constrained question (Ambridge, 2013).

So for getting the answers to the questions of this particular research, naturalistic methodology of cross sectional studies which includes an orderly and systematic elicited production experimental process with numerical evidence, was adopted by the researcher.

3.1.1 Pilot Study

To see the validity of the instruments and the achievability of the research protocol before the actual research, a pilot study was carried out by the researcher on small scale. During this pilot study it was observed that the family background had a great impact in the speech production of the children. The children living in city area had more vocabulary items in English instead of Urdu or Punjabi which could not give proper results of noun, verb inflections. Similarly when these children were shown the same pictures for Urdu and Punjabi data, most of the children used single language for the answers in both languages which could not provide the desired results. Another thing was observed that through picture description all the aspects of morphosyntactic development could not be covered.

Secondly during pilot study it was observed that before three years children from Punjabi background speak Punjabi although they understand Urdu properly and have comprehension of both the languages.

3.1.2 Population and Sampling

"A population is simply an arbitrarily defined group in which he happens to be interested..." (Butcher, 1966).

A population is the "universe of the people" to which generalizations could be made while a sample is the division and selection of people from that universe, who are eligible and participate in that research. Sampling plays a key role in categorizing the population. It can be random or probabilistic and non-random or non-probabilistic (Vanderstoep & Johnson, 2008). The current study adopted non-random sampling because only those participants were selected who were from Punjabi background i.e. their home language was Punjabi and exposed to both the languages (Urdu & Punjabi) from the very childhood and had same characteristics like socio-economic conditions, having rural background, required for the study.

3.1.2.1 Participants or Respondents

Keeping in view the main objective of this research a total 48 respondents including one Urdu and Punjabi monolingual group of 12 respondents (6 respondents of Urdu and 6 of Punjabi as L1) aged 2.5 - 3.0 and 36 bilingual respondents of 3.0 - 6.0 years divided into 6 groups age wise like 3.0 - 3.5, 3.5 - 4.0, 4.0 - 4.5, 4.5 - 5.0, 5.0 - 5.5, 5.5 - 6.0, (see Appendix 11.3) including 3 males and 3 females in each group which is considered ideal for this type of research, were selected because morphosyntactic development takes early 5 - 6 year of child's life. Only those respondents were selected who had no speech, language or hearing problem and could speak Urdu and Majhi dialect of Punjabi spoken in Lahore.

The situation in Punjab is that two groups of speakers exist here. The first group is of Urdu speaking families who migrated from India and settled here in Punjab. This group does not encourage the children to speak Punjabi in their childhood and mostly children listen and learn Punjabi outside their homes after their L1, as a second language. So they are sequential bilinguals. This group is not the part of this research.

The second group is of Punjabi speaking families which is further of two types: the first who live in cities and are landlords or financially strong. The elders in these families speak Punjabi among themselves but address their children in Urdu and their children are sequential bilinguals because they get exposure of both the languages but they speak Punjabi few and far between with their grand parents or attendents when they are out of their mothers' laps and their Punjabi develops later on. The second type is of those families belonging to working class or rural background who speak Punjabi at home. Their children start with Punjabi in their childhood but have the exposure of Urdu through their elder siblings who study in schools where Urdu is the medium of instruction or through media and outside environment, or diverse social settings. These children have some words of Urdu in their vocabulary but speak mostly Punjabi before three years. So these children have the comprehension of Urdu but in production their Punjabi language is dominant. So for 2.5 - 3.0 age group the researcher selected three males and three female respondents for Urdu from the first type and for Punjabi from the second type of Punjabi speaking families separately and named it as monolingual group and from 3.0 - 6.0 those bilinguals were selected who could speak both the languages. So that the complete course of morphosyntactic development can be observed and analysed.

3.1.3 Tools or Instruments for the Study

Experimental Elicited Production Methods (Pictures, Video Clip & Live Enactment)

This research was divided into three parts to see the noun, verb morphosyntactic acquisition and adjective-noun, subject-verb and object-verb agreement and for all these three tasks different elicited production methods were used.

3.1.3.1 Picture Description Task

For grammatical or morphosyntactic categories of noun like gender [masculine / feminine (M / F)], masculine number [singular / plural (S / Pl)], feminine number (S / Pl), case masculine singular [nominative /oblique / vocative (Nomi / Obli / Voca)], case masculine plural (Nomi / Obli / Voca), case feminine singular (Nomi / Obli / Voca), case feminine plural (Nomi / Obli / Voca) and for verb morphosyntactic categories of present progressive and perfect tense, the picture description task was used.

Keeping in view the age and background of respondents different pictures of humans and common animals like cock, hen, horses, cats, chicks taken from net for Urdu and Punjabi both were shown to the respondents and then they were asked to describe them (see Appendix 11.1). For getting the uniform responses the same sequence of pictures for Urdu and for Punjabi was adopted for all the groups. For cases more confined or structured questions like *laRke kahAN hEN?* ("Where are the boys?"), were asked and for vocative case the respondent was required to call what was in the picture. Some time especially the younger children were asked to call their brothers and sisters to record how they would respond in vocative case. For progressive and perfect tenses those pictures were selected which could express the particular tense and the response of the respondents while describing the picture was recorded.

3.1.3.2 Video Clipping

But for past tenses (progressive, habitual, perfect) picture description task was not suitable because the respondents were not responding in past while describing a picture until and unless they were asked in past tense. So to avoid subjectivity or biased result, video clipping method was considered to be useful for this purpose. A video clip of Charlie Chaplin movies with the *title Charlie Chaplin: The Lion's Cage*, was shown to the respondents and then they were required to tell what they had seen first in Urdu language and then in Punjabi and through their description, the responses of past tenses were recoreded. In the description of video clipping the use of oblique case of infinitive was also observed and considered.

3.1.3.3 Live Enactment of Toy Size Difference Method

For feminine singular and plural nominative cases baskets of different sizes were shown to the respondents. While for feminine singular oblique case small basket was put in the big one and for feminine plural oblique case, small dolls or eggs were put in small baskets and the responses were recorded.

For Punjabi acquisition of the same morphosyntacic categories different items were shown to the respondents because with the same prompts or toys their response was the same (in Urdu language). For masculine cases balloons of different sizes were shown to the respondents and for feminine cases dolls of different sizes were shown to the respondents. For nominative singular and plural cases the respondents were shown small and big balloons. For masculine singular oblique case small balloon was inserted in the big balloon and asked by the researcher, "What had been done?" and for masculine plural oblique case both small balloons were inserted in the big balloons and were asked about the act.

Similarly as mentioned above for feminine cases dolls of different sizes were shown to the respondents and asked and their responses were recorded for singular and plural nominative cases. For feminine singular oblique case the small doll was given in big doll's hand by the researcher and for feminine plural oblique cases two small dolls were taken by the big doll. Sometime the respondents did not respond then the researcher put those small dolls in small baskets and recorded their answers.

For subject verb agreement and object verb agreement no separate data was collected rather the existing recorded data was utilized to find out from which stage or age both the agreements were used by the respondents. In this way the data from Urdu and Punjabi monolinguals aged 2.5 - 3.0 and bilinguals aged 3.0 - 6.0 was collected and recorded.

3.1.3.4 Interviews

"...interviews may be structured and analyzed in a quantitative manner, as when numeric data is collected or when non-numeric answers are categorized and coded in numeric form" (Hughes, 2006). It can be unstructured as well.

For demographic information and permission for the recording of their children's language, the mothers of all those children were also interviewed unstructurally for language history i.e. to find out the dominant language of the target child and the way of acquiring both the languages by them before their child's participation in the research but that was not the part of the analysis (see Appendix 11.2).

3.1.3.5 Recording

In the field of linguistics the basic purpose of recording is to collect data for analyzing the structure of language which is different from other kinds of recording where the main focus is not on the form rather on the content (Margetts & Margetts, 2011). For the child's production abilities or for checking his language development, audio recording proves helpful tool not only in the collection of important and relevant data but also in the analysis of data to make inferences based on the reality instead of depending on mere assumptions.

So the data of these children was collected and recorded in both the languages separately. The recording was done on Audionic MP3 Player Dream 7700 which is a slim, portable, handy player. It also has a microphone for clear, audible voice recording and also the ability of rewind and replay which helps in appropriate transcription. Then those wave files were transferred to computer with the help of drag and drop feature of player for transcription. During recording sometimes two, three respondents were also observed and recorded by the researcher for extracting as much information as possible.

3.1.4 Transcription

The process of transcription is very time consuming but it gives an insight to the researcher to peep into the data and helps in its analysis. Burns (1999) said, "Transcription has the effect of concentrating the mind considerably beyond simply listening or watching and provides a basis for more indepth analysis..."

Transcription conventions range from simple orthographic to highly codified system. In this particular research the transcription was done in Roman to set the uniformity in the whole of data including Urdu and Punjabi and the scheme is given in the beginning of the research. But great care and caution was taken in the transcription of morphemes like inflections, case markers etc. and in the selection of morphemes, to see to what extent an utterance is important grammatically.

3.1.5 Protocol for Data Collection

The data analysis for this type of research can be based on the formal categories focusing on the form or production of the particular linguistic feature or it can be semantic based interrogating the acquisition of meaning. The third type can be the combination of both form and meaning (Voeikota & Savickiene, 2001) and this particular study keeping in view the third possibility sets protocol for analysis.

3.1.5.1 Protocol for Experiment 1

Urdu and Punjabi Noun Acquisition

For Urdu and Punjabi Noun acquisition 4 responses yes (Y), no (N), in process acquisition (IP) and no response (NR) were observed during data analysis. Yes (Y) responses included the absolute marked noun in both languages, unmarked nouns, Urdu - Punjabi noun overlapping in both languages with the whole phrase in single language, English nouns in gender and number taken as unmarked (see Appendix 11.4.1.1).

While no (N) responses included the absolute wrong answer, self vocabulary, English nouns in nominative plural case which did not indicate inflectional acquisition, English mixing in oblique cases, incomplete inflection in oblique and vocative plural case, the vocative case without noun (see Appendix 11.4.1.2).

In process acquisition (IP) included overgeneralization within language, over generalization across language (in Punjabi from Urdu), number in plurals and case inflection, mixing of languages, incomplete inflection in masculine and feminine plural case (see Appendix 11.4.1.3).

While for no response (NR) each respondent was asked for three times but if there was a complete silence in return, it was considered as NR.

3.1.5.2 Protocol for Experiment 2

Urdu and Punjabi Verb Acquisition

 Protocol for yes (Y) responses included absolutely right use of form and function, mixing of languages but the correct usage of tense (see Appendix 11.4.2.1).

- For no (N) responses absolute wrong use of form and function, incorrect use of gender, use of singular form instead of plural form were considered (see Appendix 11.4.2.2).
- While for IP constructions Punjabi construction in Urdu context, Urdu construction in Punjabi context, incomplete constructions, Punjabi mixing in Urdu construction, Urdu mixing in Punjabi construction were taken into consideration (see Appendix 11.4.2.3).
- And if the respondents did not use any construction it was considered as no response (NR).

3.1.5.3 Protocol for Experiment 3

Urdu and Punjabi Adjective-Noun Agreement

The protocol or rules for yes (Y) included the absolute correct responses, Urdu-Punjabi adjectives overlapping in both languages, Punjabi mixing in Urdu construction, English noun with Punjabi adjective in nominative case, common use of plural oblique (see Appendix 11.4.3.1).

While no (N) responses included absolute incorrect responses, incomplete inflection in oblique plurals, use of noun only instead of adjective-noun construction, post modifiers, English noun in oblique case which did not indicate inflectional acquisition (see Appendix 11.4.3.2).

Rules for IP constructions included diminutives, use of adjectives as noun or only nouns, use of numbers as pre modifiers instead of attributive adjectives, overgeneralization of noun inflection in same language, overgeneralization of both adjective-noun inflection in same language, Punjabi construction in Urdu context, Urdu construction in Punjabi context, interference of Punjabi inflection in Urdu, overgeneralized double inflection and innovative forms (see Appendix 11.4.3.3).

CHAPTER 4

4 RESULTS AND ANALYSIS OF BILINGUALS

This chapter deals with the results of the observed and recorded data, collected for the present study. The data has been collected using different tools discussed in the previous chapter. Now results gathered through this data are presented graphically.

As the main aim of this chapter is to find out the answers of the research questions by explaining the normal process of morphosyntactic acquisition of Urdu and Punjabi children, so at first the analysis of morphosyntactic categories of noun, verb and agreement (adjective-noun, SVA, OVA) acquisition of all the age groups from 3.0 - 6.0, for both the languages separately is revealed and then their bilingual acquisition of these categories is also presented in detail.

4.1 Experiment 1 (Urdu and Punjabi Noun Acquisition)

The overall data for Urdu and Punjabi noun acquisition was collected from all the six respondents within each age group separately which was further combined as single category and analyzed across the groups and across the languages (see Appendix 11.5.1.1 & 11.5.1.2 for responses and Appendix 11.5.3.1 & 11.5.3.2 for percentage and for interlinear morphemic glossing see Protocol for Noun Acquisition 9.4.1)

Firstly the results of morphosyntactic categories of Urdu and Punjabi nouns like gender (M / F), number (M number & F number) and case (masculine & feminine (S / Pl) were discussed here separately within each age group.

4.1.1 Within Group Analysis of Individual Categories

4.1.1.1 Within Group Analysis of Gender Acquisition

For Urdu genders, keeping in view the age and exposure of the respondents, the most common or marked nouns were selected. The pictures of murGA, مرغا ("cock") and murGi, مرغا ("hen") ending with alif, [†] ("-A") and choTi ye, c ("-i") for Urdu gender and for Punjabi gender the pictures of munDA, منظا ("boy") and kuRi, کڑی ("girl") were shown to all the respondents of all the ages to analyze their gender acquisition (see Appendix 11.1).

The below snapshot of Urdu and Punjabi gender acquisition of these respondents showed the percentage of their four responses (yes (Y), no (N), in process acquisition (IP) and no response (NR).



 Figure 4.1
 Age Group (3.0 - 3.5)

Here the respondents used Urdu masculine more properly than feminine but because at this stage they started using Urdu frequently so mixing was found and in process acquisition (IP) was being observed. Some of the respondents aged 3;1, 3;2 instead of calling them murGA, ("cock"), and murGi, ∞ ("hen"), named them on their sounds like kukRUkRUN, λ ("cock"), and self vocabulary for discrimination was also observed like kUkU, λ and cUcU, $\xi \in \xi$, for cock and hen.

In Punjabi the result was just opposite as the respondents used feminine correctly but in masculine one of the respondents aged 3;2 could not discriminate the gender and called them both with the same name like *guriA*, $\xi_{c,\mu}$ (doll).

• Punjabi feminine was responded most correctly in all.



Figure 4.2 Age Group (3.5 - 4.0)

At this stage the use of masculine and feminine was almost equal by the respondents. But again they used Urdu mostly in school and here they were introduced

with animals, fruits and vegetables names in English and they had their own concepts and names for discrimination like hen and *kukaRi*, ۲ ککڑی ("hen") for both categories of masculine and feminine or *baRi murGi*, بڑی مرغی ("big hen"), *choTi murGi*, چپوٹی مرغی ("small hen") instead of *murGA*, مرغا ("cock"), *murGi*, مرغی ("hen") even at age 3;7 which indicates that they use adjective-noun agreement even before gender discrimination.

In Punjabi the respondents had clear concept of gender discrimination and they identified and used masculine and feminine properly.

• Punjabi gender as a whole was being acquired completely by the respondents while in Urdu gender they were still in the process of acquisition.





This age group used Urdu feminine more accurately than masculine. Still at the age of 4;4, 4;5 the respondents were more concerned about the size of the noun and they judged the difference on size basis as *baRi*, بڑی ("big") or *choTi murGi*, چهوٹی چهوٹی (small hen"), *kukRi*, ککڑی ("hen") instead of looking at their feature difference or physical appearance. It showed that the size difference is acquired by them quite earlier.

 In Punjabi the response was 100% correct in both the categories which indicated that the respondents of this age group were not confused with the difference in gender.



In this age group again the Urdu feminine was acquired appropriately than the masculine gender. The respondents aged 4;8, 4;11 still responded them as *murGi*, مرغى ("hen") or *choTi murGi*, جهوتى مرغى ("small hen") instead of *murGA*, مرغى and *murGi*, مرغى ("cock and hen") although the pictures which were shown to the respondents were quite clear. The reason might be the more common use of *murGi*, مرغى ("cock") by the children.

• In Punjabi masculine and feminine were used in an approved manner. In both the languages the Punjabi gender acquisition was to the lead than Urdu gender.



Figure 4.5 Age Group (5.0 - 5.5)

In this age group fluctuation in the Urdu gender acquisition could be observed as on the one side the acquisition of Urdu masculine increased to 83% but on the other side feminine was acquired 67%. The reason behind could be that this age group had used English names for these gender categories but because of little exposure and use of English produced it in unsuitable manner like hen and chick in place of *murGA*, (4×2) and *murGi*, (4×2) ("cock and hen") or only cock for both these categories. While in Punjabi they knew the gender difference that is why had used each category in the right way. The percentage of Punjabi gender acquisition was higher than Urdu gender acquisition in these children.



Figure 4.6 Age Group (5.5 - 6.0)

The results of gender category of this age group proves the claim that the children's L1 linguistic development takes 5 - 6 years to complete and their Urdu and Punjabi gender acquisition is balanced and complete at this stage.

4.1.1.2 Within Group Analysis of Number Acquisition

For Urdu number acquisition, masculine number (S / Pl) and feminine number (S / Pl) were analyzed separately within group. They were combined in across the group analysis. The pictures of *ghoRA*, كَبُورْ *ghore*, كَبُورْ ("horse / horses") ending on *alif*, ("-A") and *baRiye*, (("-e") for Urdu masculine numbers and *murGi*, (("-e")) (("-e")) for Urdu masculine numbers and *murGi*, (("-aN")) (("-aN")) for Urdu feminine numbers while for Punjabi masculine number the picture of *munDA*, (("-i")) (("boy / boys") and for feminine numbers kuRi, (("boy / boys") and for feminine numbers kuRi, (("-girl)) (("girl)) (("girls")) were shown to all the respondents of all the ages to analyze the number acquisition (see Appendix 11.1).



Figure 4.7 Age Group (3.0 - 3.5)

In this age group Urdu masculine singular number was used in perfect manner which showed their complete acquisition while the use of correct masculine plural number was comparatively low as the respondents aged 3;1, 3;2, also used uninflected form like *ghoRA*, الجُورِّ ("horse") instead of *ghoRe*, الجُورِّ ("horses") equally. On the other hand the results of Urdu feminine number showed that they either had acquired it little or they were still in the process of acquisition because only one of the respondents aged 3;1 correctly used feminine singular number as *murGi*, مرغى ("hen") and another respondent aged 3;2 responded as *do cUcU*, دو چوچو ("two chicks") which indicated the in process acquisition of feminine plural number while the rest of responses were either uninflected form or masculine number like *kukaR*, كَرَّ ("cock").

In Punjabi the masculine singular number was fully responded well as *munDA*, "فند "("boy") while masculine plural was also used by the respondents in an acceptable manner. Again only one of the respondents aged 3;2 answered as *mEN*, میں ("I") while looking at the picture of the boy and the other with the same age 3;2 replied as *kAkA*, "فال ("baby") which could not indicate Punjabi masculine plural inflecton.

• Masculine singular number was acquired fully by this age group as a whole.



Figure 4.8 Age Group (3.5 - 4.0)

In this age group the use of Urdu masculine singular number was apt while in plural only one of the responses was not fully inflected and used by a child aged 3;7 as a bare form like *do ghoRA*, دو گهوڑا ("two horse") instead of *do ghoRe*, دو گهوڑا ("two horses"). While Urdu feminine number acquisition was incomplete as in feminine singular the respondents had used 50% well but half of the respondents still responded as masculine singular like *kukaR*, کگڑ ("cock") instead of *murGi*, مرغی ("hen") and feminine plural's proper responses were very few which showed that the respondents could not use it appropriately. Different types of inapt responses were observed and

recorded like *kukaRi*, ککڑی ("hen"), *murGA*, دو ککڑ ("cock"), *do kukaR*, دو ککڑ ("two cocks"), *kukRukRUN*, دو ککڑوکڑوں (self vocabulary).

Punjabi masculine and feminine numbers as *munDA*, منڈ / *munDe*, منڈ / 'boy') and *kuRi*, منڈ / *kuRiaN*, کڑی / *kuRiaN*, کڑی / *kuRiaN*, کڑی ("girl / girls") were used by the same respondents in Punjabi context completely up to the mark which told that they had acquired Punjabi masculine and feminine numbers wholly.

 In Urdu and Punjabi acquisition of masculine and feminine numbers, Urdu feminine number was used less by all.



Figure 4.9 Age Group (4.0 - 4.5)

At this stage the children were in a position to use Urdu masculine numbers in singular and plural appropriately. Only one respondent aged 4;3 used *tiin horse*, تين بارس ("three horse") which could not show plural inflection *baRi ye*, \geq ("-e") like *ghoRe*, \geq ("horses"). In feminine numbers, singular numbers were used in almost proper way but plural numbers' correct use was quite low because the response was either *murGe*, $\geq \geq \chi$ ("cocks") which showed that they even at this stage were confused in gender discrimination.

In Punjabi masculine and feminine singular was used perfectly but in masculine and feminine plural the chance of improvement was observed. Only one of the responses was incorrect and one was inter language mixing like *kuRieN*, كڑئيں (girls) at age 4;3 which showed their inprocess acquisition within Punjabi language.

 \circ In this group only Urdu feminine plurals were used poorly by the participants.





The results of the Urdu masculine and feminine number acquisition demonstrated that feminine plural use was less correct out of all these four categories. The reason behind could be the intra language (within Urdu) mixing like *murGieN*, The reason behind could be the intra language (within Urdu) mixing like *murGieN*, مرغنیں ("hens") instead of *murGiaN*, مرغنیں ("hens") and the inter language (Urdu & Punjabi) mixing as *kukaRieN*, ککڑ ئیں ("hens"). While few participants could not differentiate between hen and cock.

In Punjabi masculine and feminine numbers only one response could be seen in Punjabi feminine plural number which comes under IP category because of the inter language interference like *kuRieN*, كَرْنِي ("girls") at age 4;8 instead of *kuRiaN*, كَرْيال ("girls") while the remaining responses were exact.

• Feminine plural number in both the languages requires time to be acquired.





This age group showed low results of Urdu masculine plurals and Urdu feminine plurals. The reason behind could be the more use of English vocabulary items like *tiin* horse instead of tiin *ghoRe*, دو بين گهوڙ ("three horses") or *do hen* دو بين ("two hen") instead of *do murGiaN*, دو مرغياں ("two hens"). Although their meanings were

correct and understood yet the aim of this study was to observe Urdu and Punjabi morphosyntax that is why these responses were considered as IP. Secondly because of the use of uninflected or bare forms in plural feminine number like hen instead of hens or *murGiaN*, مر غيال ("hens") the responses were considered as no (N).

In Punjabi only one of the feminine plural numbers fell under IP category because of the intra language transfer like *laRkieN*, لڑکئیں ("girls") instead of *KuRiaN*, کڑیاں ("girls") by a child aged 5;2. The remaining categories were used in a right way.

• Largely Urdu feminine plural was in the process of acquisition.



Figure 4.12 Age Group (5.5 - 6.0)

The results of this last group showed that Urdu masculine and feminine singulars were used in the right manner while masculine and feminine plurals were still in the process of acquisition which could be observed from the above chart and graph. The reason could be the use of English animal names with Urdu numerals at age 5;10 like *tiin* horse, تين بارس ("three horse) instead of *tiin ghoRe*, تين گهرڙ ("three horses") in masculine plural and in feminine plural at age 5;9, 5;10 the use of uninflected form like "hen" or over generalization of Urdu rule like *tiin heneN*, مريني ("three hens") or *murGieN*, مريني instead of *murGiaN*, مرينيان ("three hens").

In Punjabi masculine and feminine numbers only feminine plural number showed the IP category at age 5;11, 5;9 because of the use of numeral with uninflected or bare form like *do laRki*, دولڑکی ("two girl") or the use of mixed forms like *laRkieN*, دولڑکی ("girls") instead of *kuRiaN*, لڑکئیں ("girls") instead of *kuRiaN*, لڑکئیں ("girls") or *laRkiaN*, الڑکئیں ("girls").

• This group showed the lower percentage of Urdu plural number as a whole.

4.1.1.3 Within Group Analysis of Case Acquisition

For case acquisition, in Urdu and Punjabi masculine cases (singular / plural) and feminine cases (singular / plural) were analyzed separately in within group analysis. For Urdu masculine singular cases (nominative, oblique & vocative) the picture of one boy sitting on the horse was shown to the children and for Urdu masculine plural cases (nominative, oblique & vocative) the picture of one boy patting two horses was shown to the respondents. For Punjabi masculine singular cases (nominative, oblique & vocative) the picture of one boy holding football in his head was shown to all the respondents and for Punjabi masculine plural (nominative, oblique & vocative) the picture of two boys holding foot balls in their hands were shown to the respondents and their responses were observed and recorded (see Appendix 11.1). Below is the analysis of these masculine cases.

a) Within Group Analysis of Case Masculine Acquisition

00% 80% 60% 40% 20%													
0%	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	
	Cas	e Macul	line	Cas	e Mascu	lline	Case	e Mascu	iline	Cas	e Mascu	line	
	Singular (Urdu)			Pl	ural (Uro	lu)	Singular (Punjabi)			Plu	Plural (Punjabi)		
■NR	0%	0%	0%	0%	0%	17%	0%	0%	17%	0%	0%	33%	
∎IP	0%	33%	0%	0%	0%	0%	0%	0%	0%	0%	17%	0%	
■N	0%	17%	17%	33%	100%	67%	0%	83%	17%	17%	83%	67%	
ĭY	100%	50%	83%	67%	0%	17%	100%	17%	67%	83%	0%	0%	

Figure 4.13 Age Group (3.0 - 3.5)

The results of this age group showed that the respondents had used Urdu masculine singular cases more accurately as the nominative and vocative cases were used with proper understanding while in oblique they were in the process of acquisition because they aged 3;1 along with right answers, had also used constructions which were mixed with case markers like *ghoRe de*, *de*, *de*,

ghoRoN ke, گھوڑوں کے ("on horses") which told that this age group would take time to materialize masculine plural oblique and vocative suffixes.

In Punjabi the nominative cases of both masculine singular and plural were almost exercised accurately but in oblique cases the children were in process of acquiring these cases. They were conveying their message through 3rd person pronoun in oblique case or signals like *ode kol*, اودے کول ("they have") instead of *munDeaN de kol*, منڈیاں دے کول ("the boys have"). Masculine singular vocative case was also applied in acceptable manner but the plural vocative showed that its acquisition was again time taking.

• As a whole in the acquisition of this age group, masculine singular oblique, plural oblique and vocative cases were in developmental process.



Figure 4.14 Age Group (3.5 - 4.0)

Urdu masculine singular nominative, oblique & vocative cases and plural nominative case were attained by this age group but plural oblique and vocative cases were used in inappreciable manner. Only one of the respondents aged 3;10 had used IP construction of Punjabi oblique case in Urdu context like *ghoReaN nuN*, گهوڑوں نوں ("to the horses") instead of *ghoRoN ko*, گهوڑوں کو

In Punjabi masculine singular and plural, nominative and oblique cases were used in significant proportion except plural vocative case where the participants had either used singular vocative or uninflected form.

 Masculine singular nominative, oblique and vocative and plural nominative cases in Urdu and Punjabi were attained fully by the participants of this age group.

Figure 4.15	Age Group	(4.0 - 4.5)
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00% 80% 50% 40%													
0%	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	
	Case Maculine Singular (Urdu)		Case Masculine Plural (Urdu)			Case Masculine Singular (Punjabi)			Case M	Case Masculine Plural (Punjabi)			
NR 🛛	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
MIP	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	17%	0%	
N N	17%	0%	17%	17%	33%	83%	0%	0%	33%	0%	33%	100%	
Y 📔	83%	100%	83%	83%	17%	17%	100%	100%	67%	100%	50%	0%	

This age group's responses revealed the fact that only Urdu masculine plural case was in the process of acquisition because of the high IP percentage. The data showed that the children had the comprehension of the use of masculine plural oblique suffix but they especially aged 4;5, 4;6 were still mixing Urdu and Punjabi plural oblique and producing Punjabi oblique case inflection with Urdu base form like *ghoReaN nuN*, کھوڑیاں نوں ("to the horses") instead of *ghoRoN ko*, کھوڑیاں نوں ("to the horses"). Similarly plural vocative case inflection could also be observed in this age group.

In Punjabi, masculine plural oblique case was in the process of acquisition with an IP response of Urdu construction in Punjabi context like *laRkoN ne, ل*ڑکوں نے ("the boys"). While vocative case was not used properly by any of the respondents rather they aged 4;4, 4;6 used singular vocative case here also like *pAai*, پائیو ("brother") instead of *pAaio*, پائیو ("o brothers").

• In general masculine plural oblique and vocative cases of both the languages require further time for development.

00% 80% 60% 40% 20%														
0 /0	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca		
	Cas Sing	se Macul gular (U	line rdu)	Case Masculine Plural (Urdu)			Case Masculine Singular (Punjabi)			Cas Plui	Case Masculine Plural (Punjabi)			
■NR	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%		
∎IP	0%	0%	0%	0%	0%	0%	0%	17%	0%	0%	0%	0%		
■N	0%	0%	33%	0%	83%	100%	0%	0%	17%	17%	33%	83%		
ĭY	100%	100%	67%	100%	17%	0%	100%	83%	83%	83%	67%	0%		

Figure 4.16 Age Group (4.5 -	- 5.0)	
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Urdu masculine plural oblique and vocative cases were answered inappropriately because the children of this age group were at the moment replying in singular oblique and vocative cases. The reason behind could be the less use of these cases in their language.

In Punjabi all masculine singular (nominative, oblique & vocative) cases had high positive values. Crosslinguistic interference could be observed in singular oblique only. In plural oblique they were still at the stage of learning the approved inflected form of cases while in plural vocative case they applied the singular vocative cases like munDe, منذ ("boys") instead of munDeo, منذ ("o boys").

• In both the languages the children had the proper understanding of masculine singular nominative, oblique, vocative and plural nominative cases.



Figure 4.17 Age Group (5.0 - 5.5)

In this age group Urdu masculine singular nominative and oblique cases were used equally well but vocative case was responded poorly because of the use of nominative case like *ghoRA*, ("horse") in lieu of vocative suffix *baRi ye*, ("-e") like *ghoRe*, $\geq \psi \in \mathbb{C}$ ("o horse"). In plural cases nominative was used positively as compared to other cases but oblique and vocative cases were not attained well with incomplete inflection and indirect responses like *idhar AAo*, الدهر آن ("come here") without vocative case.

In Punjabi, masculine singular nominative and oblique cases had high percentage as compared to vocative case where the children aged 5;1, 5;2, 5;4 missed the vocative noun and answered as *Edar AAiN*, الدهر آئيں ("come here") or *idhar AAo*, ("come here"). In plural oblique case IP construction could be observed like *laRkoN de*, الأكون دے ("boys") which was the mixing of Urdu plural oblique *laRkoN*,

لاڑکوں ("boys") instead of *laRkeaN*, لاڑکیا ("boys") or *munDeaN*, منڈیاں ("boys") with Punjabi genitive case marker "de". While the plural vocative case showed the highest no (N) value because of the same responses like singular vocative case.

• In overall masculine case acquisition plural oblique and vocative cases were at the stage of development.

00% 80% 60% 40% 20%														
0%	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca		
	Cas	se Macu	line	Case	e Mascu	iline	Cas	e Mascu	iline	Cas	e Mascu	line		
	Singular (Urdu)			Plural (Urdu)			Singular (Punjabi)			Plur	ral (Punjabi)			
■NR	0%	0%	0%	0%	0%	17%	0%	0%	17%	0%	0%	17%		
∎IP	0%	0%	0%	33%	33%	0%	0%	0%	0%	0%	33%	0%		
N	0%	17%	17%	50%	33%	83%	0%	0%	50%	0%	17%	83%		
ĭY	100%	83%	83%	17%	33%	0%	100%	100%	33%	100%	50%	0%		

Figure 4.18 Age Group (5.5 - 6.0)

The results of Urdu masculine singular nominative, oblique and vocative cases of this age group showed that they were appropriately developed in the children of this age group but the low percentage of plural nominative, oblique and vocative cases indicated some reasons behind that as in nominative and oblique cases more IP constructions of inter language mixing with Urdu numerals was observed like *do horse*, رو بارس ("two horse") which revealed their understanding of the case but because of the use of English nouns they answered like this and in vocative case the response was either uninflected unmarked form like bhAi, بهائی ("brothers") instead of bhAio, بهائیو ("o brothers") or ellipsis like *idhar AAnA*, ادهر آنا ("come here").

In Punjabi masculine singular nominative, oblique and plural nominative were developed fully in this age group but plural oblique showed some signs of IP construction of Urdu Punjabi mixing in Punjabi context like *laRkeaN de*, الأكيال ("to the boys"). The vocative cases were still not used aptly because of the unmarked suffixless noun like *pAai*, المال ("brothers") instead of *pAaio*, يائير ("o brothers") and contracted form like *idhar AA*, الدهر الدهر ("come here").

• Overall the children had the clear idea of the use of nominative and oblique cases in both the languages and vocative case would develop further.

b) Within Group Analysis of Case Feminine Acquisition

00% 80% 60% 40% 20%												
0%	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca
	Case Feminine Singular (Urdu)		Case Feminine Plural (Urdu)			Case Feminine Singular (Punjabi)			Case Feminine Plural (Punjabi)			
■NR	0%	0%	17%	0%	0%	0%	0%	0%	0%	0%	0%	17%
∎IP	0%	33%	0%	0%	17%	0%	0%	17%	0%	0%	0%	0%
■N	0%	17%	0%	33%	83%	100%	0%	17%	0%	67%	83%	83%
N	100%	50%	83%	67%	0%	0%	100%	67%	100%	33%	17%	0%

Figure 4.19 Age Group (3.0 - 3.5)

This age group showed better production of Urdu feminine singular oblique case and nominative plural and IP construction could also be observed in oblique plural but vocative case was still not used properly although the children used plural suffix like *billion*, باليان ("cats") but that was of nominative case not of vocative.

In Punjabi nominative, oblique and vocative cases, singulars were acquired by this age group to a significant level but plurals were used weakly especially in oblique and vocative as the use of plural suffix *alif ye alif nUnGunna*, level ("-iaN") could be observed in the data but they did not know its proper use.

• As a whole, the feminine plural oblique and vocative were undeveloped by this age group.

00% 80% 60% 40% 20%														
0%	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca		
	Cas Sing	se Femir gular (U	nine rdu)	Case Feminine Plural (Urdu)			Case Feminine Singular (Punjabi)			Case F	ase Feminine Plural (Punjabi)			
∎NR	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
∎IP	0%	0%	0%	0%	83%	0%	0%	0%	0%	0%	0%	0%		
■N	0%	0%	0%	0%	17%	100%	0%	0%	0%	0%	17%	100%		
ĭY	100%	100%	100%	100%	0%	0%	100%	100%	100%	100%	83%	0%		

Figure 4.20 Age Group (3.5 - 4.0)

The respondents of this group used Urdu feminine singular cases along with plural nominative to an incredible level and plural oblique was also in the process of acquisition as the children had the understanding of the plural oblique use but they used plural nominative along with ergative case marker like *laRkiaN ne*, الرُّحيان نے ("the

girls"). Another reason could be the interaction of Punjabi because of which they used Punjabi plural oblique suffix like *alif ye alif nUnGunna*, الإكيان ("-iaN") *in laRkiaN ke*, الركيان كار ("on the girls") instead of *alif ye vao nUnGunna*, الركيون كار ("-ioN") *laRkioN ke*, *ke*, الركيون كار ("to the girls) but plural vocative was still improperly used at this stage.

In Punjabi only plural vocative suffix was not produced appropriately by the respondents as they normally used plural nominative suffix *alif ye alif nUnGunna*, الار: ("-iaN"), *kuRiaN*, كڑياں ("girls") instead of plural vocative suffix "-io" *kuRio*, كڑياں ("girls").

• In both the languages only plural vocative suffix had to be developed by the respondents of this age group.



Figure 4.21 Age Group (4.0 - 4.5)

Here the mixing of intra language [*laRkiaN ne*, لڑکیاں نے ("the girls")] and inter language like [*kuRiaN ke*, کڑیاں کے ("the girls")] could be observed in Urdu oblique case (singular & plural) suffixes. While the plural vocative was still not produced with its specific inflection although they had responded it.

In Punjabi across language mixing could be viewed in plural oblique case where one of the respondents aged 4;3 had used Urdu oblique case with Punjabi genitive case marker like *laRkioN de*, لڑکيوں دے ("the girls") instead of *laRkiaN de*, لڑکيوں دے *kuRiaN de*, کڑياں دے ("the girls") in Punjabi context. While the use of plural vocative suffix was missing in this age also.

• As early bilinguals, the participants of this age had acquired majority of noun cases.



00% 80% 50% 40%													
20% 0%	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	
	Cas Sing	se Femir gular (U	nine rdu)	Case Feminine Plural (Urdu)			Cas Sing	se Femir ular (Pur	iine 1jabi)	Case Feminine Plural (Punjabi)			
NR	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
∎IP	0%	0%	0%	67%	67%	17%	0%	0%	0%	0%	0%	0%	
N	0%	0%	0%	0%	0%	83%	0%	0%	0%	0%	0%	83%	
ĭY	100%	100%	100%	33%	33%	0%	100%	100%	100%	100%	100%	17%	

In this age group linguistic development could be analyzed in Urdu feminine singular oblique and vocative cases as the children had started using them but at the same time overgeneralization within language rule [*laRkieN*, لڑکیئ ("girls")] and across language [*kuRieN*, کڑیئ ("girls")] could be viewed in plural nominative suffixes. That is why they had low values of yes (Y).

In Punjabi only the plural vocative suffix required these children's attention to be materialized as they did not imply the exact inflection for this case but on the whole they had acquired the cases.

• In general the case acquisition of this age is rapid.

00% 80% 60% 40% 20%													
0%	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	
	Case Feminine Singular (Urdu)			Case Feminine Plural (Urdu)			Case Feminine Singular (Punjabi)			Case Feminine Plural (Punjabi)			
∎NR	0%	17%	17%	0%	0%	0%	0%	0%	17%	0%	0%	17%	
∎IP	0%	0%	0%	50%	33%	0%	0%	0%	0%	0%	33%	0%	
N	0%	0%	50%	17%	0%	100%	0%	0%	33%	0%	0%	83%	
ĭY	100%	83%	33%	33%	67%	0%	100%	100%	50%	100%	67%	0%	

Figure 4.23	Age Group	(5.0)	- 5.5))
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The outcome of the case acquisition of this age showed that the children used singular vocative case in inappropriate way and along with crosslinguistic interference like *pEnaN*, پیناں ("sisters") in Urdu context, overgeneralization of inter language plural nominative suffix "-ieN", الأيل could be examined in the output of this group and plural vocative was again overlooked by these respondents.

In Punjabi interference of Urdu [*laRkiaN ke, ل*ڑکی*ا*ں کے ("to the girls")] was present in plural oblique case while plural vocative also showed the higher negative value which highlights the fact that as vocative case was less used by the people rather they preferred to call nouns through their names and vocative case was for humans or living objects that's why children at this age could not acquire its suffix.

• As a whole this group's vocative suffixes of both the languages were unacquired.



Figure 4.24 Age Group (5.5 - 6.0)

The last group of this analysis showed a higher IP value of nominative case which should be reduced at this point. The close examination of this age's linguistic development revealed that children either code switched like *do cats* ("two cats") or overgeneralized like *laRkieN*, لأكيئ ("girls") the Urdu plural nominatives and they called females without using their gender like *idhar AAo*, الدهر آؤ ("come here") which is a way to call other people.

 In Punjabi the same phenomenon of vocative case could be observed otherwise Punjabi case development as a whole was almost complete. In broad spectrum children found it natural to acquire and use the linguistic items of both the languages like adults.

4.1.2 Across the Group Analysis

Gender category remained the same due to only two values [masculine / feminine (M / F)] while in number category the responses of masculine and feminine singular and plural were combined as a single category number [singular / plural (S / Pl)] and in case category all the nominatives cases [masculine and feminine (singular /

plural)] were combined as one nominative case and same was applied to oblique and vocative cases for across the group analysis.

The same process was done with the Punjabi morphosyntactic categories of gender, number and case.

4.1.2.1 Across the Group Analysis of Gender Acquisition

After within group analysis, across the group analysis of all these categories was done for Urdu and Punjabi languages separately.

4.1.2.1.1 Across the Group Analysis of Urdu Gender Acquisition

The graphs below showed the result of responses of both masculine and feminine of gender category within one language (Urdu) among all the age groups which told when the gender category was used or acquired or materialized fully and completely by the respondents.





Although the production of Urdu masculine and feminine inflection was present in the youngest group of 3.0 - 3.5 age but it reached to perfection between the ages of 5.5 - 6.0. In between the two extremes the development of both these categories fluctuated. In the beginning the use of feminine was high, then masculine took its place. 3.5 - 4.0 age group indicated the balanced or equal development of gender category but between the ages of 4.0 - 5.0 feminine use was more accurate than masculine where children's focus was more on size difference than on gender difference. It was reversed in the next phase of 5.0 - 5.5, where the same phenomenon of size could be observed and finally it got stable in the last group and this is the point where a normal language acquisition comes to completion. The delay in the Urdu gender acquisition by bilingual children indicates two things: firstly as Urdu gender marking is related with number and case marking also so like German bilinguals in Eichler, Jansen, & Müller (2013)'s study they acquire it late. Secondly as exposure at home plays a crucial role in gender acquisition discussed by Rodina & Westergaard (2015) in the study of Norwegian-Russian bilinguals and the bilinguals of present study are from Punjabi background that's why they took time in Urdu gender acquisition.

4.1.2.1.2 Across the Group Analysis of Punjabi Gender Acquisition



Figure 4.26 Across the Group Analysis of Punjabi Gender Acquisition

In Punjabi also the youngest group used the gender category (masculine & feminine) to a remarkable level which indicated that gender inflection had been developed in young children and from 3.5 onwards it not only reached to the perfection but also remained stable till the last group. It also illustrated that once a category was developed in children they internalized it and used it properly in most of the context. Secondly as their home language was Punjabi that's why they were not confused with gender category. Although Punjabi gender marking was also related with number and case marking yet frequency as discussed by Penke (2012) of Punjabi inflection present in the input seemed to play a positive role in the acquisition of gender instead of complexity of morphological marking.

4.1.2.2 Across the Group Analysis of Number Acquisition

4.1.2.2.1 Analysis of Urdu Number Acquisition

The graphs below showed the combined results of Urdu masculine and feminine singular number category and masculine and feminine plural number category.

00% = 80% = 60% = 40% =												
0%	S	Pl	S	P1	S	Pl	S	Pl	S	Pl	S	Pl
	Nun	nber	Nun	iber								
	3.0-3.5		3.5-4.0		4.0-4.5		4.5-5.0		5.0-5.5		5.5-6.0	
■NR	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
∎IP	0%	8%	0%	8%	0%	8%	0%	17%	0%	50%	0%	58%
■N	42%	67%	25%	33%	8%	33%	8%	17%	8%	25%	0%	8%
∎ Y	58%	25%	75%	58%	92%	58%	92%	67%	92%	25%	100%	33%

Figure 4.27 Across the Group Analysis of Urdu Number Acquisition

In Urdu number category, singular was used by the youngest group to the significant level which reached to its completion till the last age group but plural was in the process of acquisition which appeared in its proper inflection between the age of 3.0 - 3.5 like English children of Brown (1973)'s who also marked plural at the same time and continued to develop till the age of 4.5 - 5.0 but afterwards declined because of the IP constructions [in process constructions in the form of mixing, over generalization like *murGieN*, $\alpha = \frac{1}{2}$ ("hens") instead of *murGiaN*, $\alpha = \frac{1}{2}$ ("hens") etc.]. 4.5 - 5.0 was the age where Urdu number category as a whole got the highest values.

The results of these respondents confirm the previous findings like that of Clark (2001)'s as here also singular number is acquired earlier than plural number and children have used modifier like do, تین *tiin*, تین ("two, three") first to express number concept than the use of plural suffixes and they have also used bare stem form like do ghoRA, دو گهو ژ ("two horse") instead of do ghoRe, دو گهو ژ

4.1.2.2.2 Analysis of Punjabi Number Acquisition



Figure 4.28 Across the Group Analysis of Punjabi Number Acquisition

Punjabi number category was acquired by the children very early between the age of 3.5 - 4.0, where they exhibited complete acquisition of Punjabi number suffixes without any mixing but increase in age showed the in process constructions of different sorts which resulted in the relatively decrease plural values of Punjabi number which indicated that as children grew in age they started experiments with the inflection which they had already acquired and it also showed their productivity. Here again children acquired singular number earlier than plural which was indicating gradual process of plural number acquisition by children. Surprisingly even at the age of 5;11 a child was using bare stem form like *do laRki*, $c \in t_c^2 \ge ("two girl")$, which might be due to individual difference.

4.1.2.3 Across the Group Analysis of Case Acquisition

The analysis of all three cases (nominative, oblique & vocative) has been presented separately for better understanding of these cases.

4.1.2.3.1 Across the Group Analysis of Case Acquisition (Urdu)

00% — 80% —						
50% — 40% —						
0%	Nomi	Nomi	Nomi	Nomi	Nomi	Nomi
	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0
■NR	0%	0%	0%	0%	0%	0%
∎IP	0%	0%	0%	17%	13%	25%
N	17%	0%	8%	0%	17%	13%
¥Υ	83%	100%	92%	83%	71%	63%

a) Analysis of Urdu Nominative Case Acquisition

Figure 4.29 Across the Group Analysis of Urdu Nominative Case Acquisition

The separate analysis of every Urdu case showed that nominative case used by the youngest group got its highest value at the age of 3.5 - 4.0 like many other languages of the world (Hindi, Malayalam etc.) which means that this case could be acquired till 4.0 because of the base form but the decline in the production of further groups indicated that the children due to limited exposure or input of language tried to accommodate their acquired information in the form of overgeneralization which resulted a decline in yes (Y) responses and increase in IP construction.

b) Analysis of Urdu Oblique Case Acquisition





The yes (Y) response of the oblique case was increased with age and although it was not fully used till the last group but the improved ratio showed that children were in the process of smooth development of oblique case and the IP constructions were also declined with increase in age which means that children instead of novel constructions prefer the correct forms if they are sure about it.

c) Urdu Vocative Case Acquisition



Figure 4.31 Across the Group Analysis of Urdu Vocative Case Acquisition

The vocative case due to its less use in common conversation by the elders had been less exposed by the respondents that's why during the age of 4.0 - 4.5 it was used 50% but afterward its value went down even till 6 years of age which indicated that the respondents could not pay attention to the use of this suffix and instead of calling someone directly as *oe laRke*, $le_2 = le_2 = le_2$ ("o boy"), they used pragmatic approach and called indirectly like *idhar AAna*, $le_2 = le_2 = le_2$ ("come here"), which showed the formal use of Urdu language by the respondents. • In the acquisition of Urdu cases the input and the complexity of the case system seemed to play a vital role.

4.1.2.3.2 Across the Group Analysis of Case Acquisition (Punjabi)

		1	-	5		1
00%						
0%	Nomi	Nomi	Nomi	Nomi	Nomi	Nomi
	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0
NR	0%	0%	0%	0%	0%	0%
■IP	0%	0%	0%	0%	0%	0%
N	21%	0%	0%	4%	4%	0%
ĭ¥	79%	100%	100%	96%	96%	100%

a) Punjabi Nominative Case Acquisition

Figure 4.32 Across the Group Analysis of Punjabi Nominative Case Acquisition

In Punjabi the children used the overall nominative case with complete perfection at the age of 3.5 - 4.0 which remained at the highest level till the last age groups. This default case seemed to be very easy for the children to respond. Here again the exposure of this case helped children in its better production at early age.



b) Punjabi Oblique Case Acquisition

Figure 4.33 Across the Group Analysis of Punjabi Oblique Case Acquisition

The oblique case was used with the highest percentage by the age group of 3.5 - 4.0, except that overgeneralization could be observed by the respondents till the last. Again this age was sensitive to the acquisition of oblique case. But at the same time oblique case was complex as compared to nominative that's why it took time in its acquisition.

c) Punjabi Vocative Case Acquisition



Figure 4.34 Across the Group Analysis of Punjabi Vocative Case Acquisition

The vocative case remained at the lowest level although between the ages of 4.5 - 5.0, it reached to 50% correct responses but with increase in age its appropriate use percentage decreased. The cause here was the same as of Urdu vocative case. The oblique and vocative cases were in process of acquisition by these children. So the complete acquisition of Punjabi case system took time as compared to gender and number acquisition.

4.1.3 Across the Language (Bilingual) Analysis

The analysis of only yes responses of gender (masculine & feminine combined), number (singular & plural combined) and case (nominative, oblique & vocative combined) of both languages was compared below to find out morphosyntactic development of both the languages among these early simultaneous bilinguals and to see the similarities and differences in the developmental process among different age groups.

4.1.3.1 Across the Language (Bilingual) Analysis of Gender Acquisition




The bilingual Gender analysis showed that children acquired Punjabi Gender system quite early i.e. between the ages of 3.5 - 4.0 while Urdu gender category took time as it was in the process of acquisition. One of the reasons might be that children acquire lexical differences like in Punjabi *munDA*, من ثالث ("boy") / *KuRi*, کڑی ("girl"), earlier as compared to morphological differences like in Urdu *murGA*, مر غار ("cock") / *murGi*, مر غار ("hen").

But the end state was the complete acquisition of gender category in both the languages which indicated the normal development of gender by bilingual children and proved the claim that bilingualism does not create any hindrance in the development of gender category in both the languages and bilingual children develop both gender systems quite easily and autonomously (Muller, 1990).

4.1.3.2 Across the Language (Bilingual) Analysis of Number Acquisition



Figure 4.36 Across the Language (Bilingual) Analysis of Number Acquisition

The combined result of singular and plural number category of both Urdu and Punjabi showed that bilingual children acquired Punjabi number category between the age of 3.5 - 4.0 and afterwards due to overgeneralization like German-French bilingual in Koehn (1994)'s, their values declined while Urdu number got its highest value between the age of 4.5 - 5.0. But different factors like late exposure, more productivity and variety in the number marking were responsible for late acquisition of number marking in Urdu. In overall bilingual acquisition of number marking the age 4.5 - 5.0 seemed to be the sensitive period. The acquisition of plural especially in Punjabi also indicated "U shaped developmental Curve" as children were acquiring plural correctly in initial stages then overgeneralized and then internalized it.

4.1.3.3 Across the Language (Bilingual) Analysis of Case Acquisition



Figure 4.37 Across the Language (Bilingual) Analysis of Case Acquisition

The combined result of all three cases (nominative, oblique & vocative) of Urdu and Punjabi shows that in the initial stage the acquisition of case category was better in Urdu as compared to Punjabi but with the passage of time the Punjabi case system was acquired better by these bilingual children although they could not acquire it fully till the last. The reason might be that in masculine and feminine plural oblique cases in Urdu *alif vao nUnGunna*, $l_e \cup$ ("-oN"), suffix was present while in Punjabi *alif nUnGunna*, $l_e \cup$ ("-aN"), suffix was present which was easy for the children to produce.

The overall highest values of both cases in both the languages were achieved by the age group of 4.5 - 5.0. So this age could be the most suitable for case acquisition as a whole. The delay in the production of these cases by bilingual children also indicated the avoidance of the use of cases and the further decrease in the case values involve factors mentioned earlier like individual differences, amount of exposure, use of particular constructions etc. Secondly the same age was observed suitable for the number acquisition as well which reveales the fact that number and case system are said to be acquired by children at the same time (Abraham, Stark & Leiss, 2007).

4.2 Experiment 2 (Urdu and Punjabi Verb Acquisition)

The overall data for Urdu and Punjabi verb acquisition was collected from all the six respondents within each age group separately which was further combined as single category and analyzed across the groups and across the languages (see Appendix 11.5.1.3 & 11.5.1.4 for responses and Appendix 11.5.3.3 & 11.5.3.4 for percentage and for interlinear morphemic glossing see Protocol for Verb Acquisition 9.4.2).

4.2.1 Within Group Analysis of Individual Categories

First of all within group analysis of Urdu and Punjabi verb categories was presented below.

4.2.1.1 Within Group Analysis of Present Tense Acquisition

For getting the result of present progressive tense the pictures of human beings doing different activities and for present perfect tense pictures of children sitting at some places were shown to all the respondents (see Appendix 11.1).

While the result of present habitual tense was extracted from the interview.



Figure 4.38 Age Group (3.0 - 3.5)

The results of this group showed that Urdu perfect tense inflection was properly used by the respondents like the Italian bilingual in Soriente (2014)' study but unlike Clark (2001)' study where present perfect was acquired late while in habitual and progressive tenses IP formation of inter language mixing could be viewed. Because of the Punjabi background they used Punjabi inflection in Urdu context like *lEndi e*, ليندى المناب ("takes") and *cuTe lEn Dai e*, إلى أن أن taking swings") instead of *jhule le rahi hE*, جوالے لے رہی ہے ("taking swings").

While in Punjabi this age used perfect and habitual tense suffixes aptly while in progressive, one of the respondents aged 3;2 used Urdu formation in Punjabi context like *kAm kar rahi hE*, کم کر رہی ہے instead of *kam kar rehi e*, اے کم کر ریہی اے or *karan Dai e*, کرن ڈئی اے ("she is) doing work"] which indicated that this tense was in the process of acquisition.

• The general development of this age group told that Punjabi tenses were used in much better way and Urdu tenses were in the developmental process. **Figure 4.39** Age Group (3.5 - 4.0)



The graphical representation of the result of this age group showed that the children were still using Punjabi tenses in Urdu context like *pakAn Dei* e, (2, 2) instead of *pakA rahi hE*, بحکان ٹئی ("site is)cooking)"] and *beTHi* e, (2, 2, 2) instead of *bETHi hE*, ("sitting"). So their Urdu present tenses were in the developmental process while this was the first time when Punjabi progressive showed the highest value. So this age was crucial for Punjabi present tenses and indicated the similar results as of Greek-English bilinguals in Dosi, Papadopouluo, & Tsimpli (2016)'study where children acquired progressive tenses earlier than habitual tenses.





• In overall tense development children of this age were better in Urdu present progressive and perfect tense production.

00% - 30% - 50% - 10% - 20% -						
0%	Progressive	Habitual	Perfect	Progressive	Habitual	Perfect
		Present (Urdu)		P	Present (Punjabi)	
NR	0%	50%	0%	0%	67%	0%
∎IP	7%	0%	0%	7%	0%	0%
N	0%	0%	0%	0%	0%	0%
∎ Y	93%	50%	100%	93%	33%	100%

Figure 4.41 Age Group (4.5 - 5.0)

The linguistic analysis of this age group showed that in both the languages the children had the clear idea of using language specific suffixes and crosslinguistic interference was very low at this stage and that could be related with the individual differences. Only one respondent aged 4;11 used kuRi, کڑ ("girl") or pAai, پائی ("brother") instead of laRki, لڑ کی ("girl") or *bhai*, نیائی ("brother") in Urdu context. The more the child used a language, the more he became fluent in it. The second thing to notice is that the children at this stage gave better response in Urdu habitual tense as compared to Punjabi's.





This is the age which is considered to be fundamental for any language of the world to acquire and same is the case with Urdu and Punjabi languages. In Urdu language also the children acquired and used progressive aspect earlier than habitual imperfective aspect like Greek-English bilinguals mentioned earlier. In Punjabi habitual present tense mixed formation of *sote hEn*, سوتے ہیں ("sleep") instead of *sute*

aN, ستے آں ("sleep") could be noticed which was related with the child's own choice otherwise they were using two separate formations in mutually intelligible languages.



Figure 4.43 Age Group (5.5 - 6.0)

The results of this age group showed that at this stage almost all of their present tenses in Urdu and Punjabi had been developed properly, if at some places they had not responded well that might be related with the factors other than linguistics and the respondents had used them fittingly and they had the clear concept of the language specific suffixes at this stage.

4.2.1.2 Within Group Analysis of Past Tense Acquisition

Figure 4.44 Age Group (3.0 - 3.5)



As the first bilingual group the respondents of this age group showed the IP formations in both the languages. In Urdu past tenses the respondents used progressive tense less as compared to perfect tense in description but transfer of Punjabi could be viewed in Urdu context like *sher lame peA thA*, شیر لمے پیا تھا ("The lion was lying down") where Punjabi and Urdu past perfect suffixes were mixed.

In Punjabi data, the IP formation was not of mixing rather of incomplete utterance in habitual tense where the child's intention was to convey what he had seen in the most natural way like *ute jAndA*, التيجاندا ("went up") where past auxiliary "-si", سى was missing as happens in spontaneous speech which indicated that he used imperfective aspect earlier than tense here. While the progressive and perfect tenses were used in the same ratio like Urdu's.

• As a whole the children of this group were better in Punjabi tense-aspect morphology.

50% - 50% - 40% - 20% -						
0%	Progressive	Habitual	Perfect	Progressive	Habitual	Perfect
		Past (Urdu)			Past (Punjabi)	
NR	50%	100%	33%	50%	33%	17%
∎IP	0%	0%	17%	0%	0%	0%
N	0%	0%	0%	0%	0%	0%
■ Y	50%	0%	50%	50%	67%	83%

Figure 4.45 Age Group (3.5 - 4.0)

Urdu past progressive tense produced by this age group demonstrated the improved value of 50 % and in further groups it could not raise to a more considerable value which indicated that this is the age important for past progressive tense. In perfect tense Punjabi mixing was present like *laRki lame pai thi*, نٹر کی لمے بئی تھی lying down"). While habitual tense was not used by any respondent.

In Punjabi however the perfect tense was used more and habitual tense was also used to a considerable level. Infact this was the stage where the children used all the past tense inflections to the highest level.

 Here again the children due to Punjabi as a dominant language were better in the use of Punjabi tense-aspect morphology.



The results of this age group showed that the respondents used Urdu perfect tense to the highest level and progressive was also used to a significant level but no mixing or incorrect response could be observed. It again revealed the fact that perfect tense is used by the respondents earlier than the progressive tense.

In Punjabi also the perfect tense was used by the respondents in a much better way. The habitual past in both the languages remained non respondent (NR) by the children. The reason might be the frequent use of simple past and perfect forms in reporting of events and habitual tense was used mostly when they were asked in that particular tense.

• In general the children of this age group due to more exposure of Urdu language were better users of Urdu past tenses.



Figure 4.47 Age Group (4.5 - 5.0)

As after age of 4.0 children start overgeneralization, same is the case with this group which showed the cross linguistic interference in past tenses of both the languages which was mostly of two types. In the first place the children mixed Punjabi structures with Urdu within the same sentence i.e. intra sentential mixing and in the

second inter sentential i.e. Punjabi constructions in Urdu context. As in Urdu progressive tense inter sentential mixing could be viewed in constructions like *hath lA rahA thA*, ابته لا ربا تها ("touching with hand") where *hath*, بته لا ربا تها ("hand") and *lA*, Y ("touch") were Punjabi lexical items and *rahA thA*, لوبا تها ("ing") was Urdu progressive and past auxiliary while in habitual the respondent had added Urdu habitual suffix "-tA", ن and past auxiliary *thA*, نس ("was") with Punjabi verb base form [*nas*, نستا تها, "the ran") instead of *bhAgtA thA*, بهاكتا تها ("ran"). And this was the first time when Urdu habitual past tense was used by the children themselves.

In Punjabi again first type of mixing could be viewed in the same respondents as in progressive the construction like *gal kar rehi thi*, قل كر ريبى تهى ["(she)was talking"] was used by a child aged 4;8 where *gal kar rehi*, گل كر ريبى was Punjabi structure and *thi*, قل كر ريبى ("was") was Urdu past auxiliary. Similarly in perfect the formation like *kholeA thA*, لهوليا تها ("opened") was the mixture of Punjabi *kholeA*, كهوليا تها ("opened") and Urdu past form of the auxiliary *thA*, تها. While habitual tense could not be used by any respondent.

• This group was better in Urdu past tense production in overall development.



Figure 4.48 Age Group (5.0 - 5.5)

Only this group used Urdu habitual past in a notable way along with IP structure where one of the respondents aged 5;6 again mixed Punjabi verb base form *saT*, سنٹ ("throw") with Urdu habitual suffix "-tA" تا and past tense of auxiliary *thA*, in construction like *chilke saTtA thA*, جهلکے سنٹنا تھا ("He threw husks"). While progressive was not used much.

In Punjabi results, the same respondent used mixed utterance where he had used Punjabi main verb *saTdA*, ستدا ("used to throw") along with Urdu past auxiliary *thA*, تها While past perfect had also been responded to a considerable manner but progressive tense was not used by any respondent by himself.

• Here the children used Urdu perfect tense to the highest ratio in all past tense acquisition and Urdu past tenses were used better.



Figure 4.49 Age Group (5.5 - 6.0)

This was the last age group of this study which had not used all these Urdu and Punjabi past tenses in a remarkable way. The reason behind observed was that mostly the children used simple past or present habitual in narratives like the description of video clipping. So their main focus was on the description and they did not use all past tenses in story telling.

• In overall acquisition of all past tenses Punjabi past perfect tense was used by the participants with higher degree.

4.2.1.3 Within Group Analysis of Infinitive Acquisition Figure 4.50 Age Group (3.0 - 3.5)



The result of this group showed that Urdu nominative infinitive was used better as compared to oblique infinitive inflection. There might be two reasons for less use of Urdu Infinitive suffixes. Firstly as the respondents had not been asked directly in these forms, that is why the ratio of no response (NR) was higher here. Secondly they had properly started using Urdu language when they entered in school.

 While in Punjabi they were already conversant that is why they had better production and use of Punjabi infinitive inflections. The respondents of this age group were better able to use Punjabi infinitive forms in overall bilingual development.



Figure 4.51 Age Group (3.5 - 4.0)

The results of this age group showed that the respondents used Urdu nominative inflection to a remarkable manner but the oblique infinitive was not used by any respondent. The reason might be the same as discussed by Jensvoll (2003) that children prefer the use of simplest forms when possible. While the use of Punjabi nominative infinitive was also equal to Urdu one but here the children used oblique infinitive to a notable way.

• Overall Urdu and Punjabi nominative infinitive inflections were used by the respondnts in equal proportion.

Figure 4.52 Age Group (4.0 - 4.5)



In this age group IP construction in Urdu oblique infinitive could be observed. One of the respondents 4;3 used Punjabi inflection "-an" like *paRhan*, پڑ هن ("to read") instead of Urdu oblique inflection "-ne" like *paRhne*, پڑ هنے ("to read"). The remaining children could not use Urdu oblique infinitive while nominative form was also used in less proportion. In Punjabi the same situation could be observed as surprisingly children used Punjabi nominative in the same ratio as of Urdu's.

• In overall development nominative infinitive had been developing in the same ratio.



Figure 4.53 Age Group (4.5 - 5.0)

The graphical representation of the results of this group told that the children had full command of Urdu nominative infinitive and in Punjabi they also responded well. Punjabi oblique infinitive was also used by them in an appropriate manner while Urdu oblique was used by these children in low proportion.

• In overall development, children were better producers of Punjabi infinitive inflections.



Figure 4.54 Age Group (5.0 - 5.5)

In this age group the children were using nominative infinitive in both the languages appropriately but here again the use of Punjabi oblique infinitive inflection was higher than that of Urdu's. The reason might be the more exposure of Punjabi oblique infinitive as compared to Urdu's.

0% — 0% — 0% — 0% —				
0%	Nominative	Oblique	Nominative	Oblique
	Infinitive	e (Urdu)	Infinitive (Punjabi)
INR	0%	50%	0%	50%
IP	0%	17%	0%	0%
N	0	0%	0%	0%
Y	100%	33%	100%	50%

Figure 4.55 Age Group (5.5 - 6.0)

The development of infinitive inflection of this group showed that the children had full grasp of nominative infinitive of both the languages. In Urdu oblique infinitive, Punjabi mixing could be seen where one of the children aged 5;7 said *kuttA vaDne lag geA*, المحتاكة ولا ناح ("The dog started biting") instead of *kutta kaTne lag geA*, كتا كتا ولا ناح ("The dog started biting") instead of *kutta kaTne lag geA*, الحك الح المحتاج was a Punjabi verb but he used Urdu oblique infinitive inflection "-ne", نا with it. In Punjabi however the respondents used oblique forms well.

• Overall nominative infinitive development in both the languages was equal in this age group.

4.2.1.4 Within Group Analysis of Imperative (Request Form) Acquisition Figure 4.56 Age Group (3.0 - 3.5)



The result of imperative request form showed that this was used in a very remarkable way by this first bilingual group. The one negative response was from the youngest respondent aged 3;1 of this group who told through gesture instead of words how she had made request to her mother when she felt hungry. The remaining children responded well. Similarly in Punjabi the child used incomplete expression along with

gestures of request i.e. a natural way to speak like roTi, روٹی ("bread") instead of roTide deN, روٹی دے دیں ("give me a bread"). Otherwise the children used punjabi request form in a suitable manner.

• In overall acquisition these children were developing request form early and equally in both the languages.

00%		
0%	Request Form	Request Form
	Imperative (Urdu)	Imperative (Punjabi)
∎NR	0%	0%
∎IP	0%	0%
■N	0%	0%
¥ Y	100%	100%

Figure 4.57 Age Group (3.5 - 4.0)

This was the age group where the children used the imperative request form in an absolute manner in both the languages. So it could be said that this age was most suitable for the proper acquisition of request form. Although in the previous studies done on other languages imperative forms revealed the acquisition of imperative forms before other verb forms at the premorphological stage (Moyna, 2009) but at the same time degree of directness and syntactic complexity as discussed by Boning (2016) also affected its acquisition rate. In this particular study the absolute correct forms of imperatives revealed its early acquisition.





The same was the case with this age group where children were using the request forms in both the languages equally well without any mixing or interference of any of the languages.



This was the group where IP construction in urdu imperative request form could be observed again. This time instead of Punjabi, the child age ranged 4;7 used the same pragmatic expression of roTi, روٹی ("Bread") in Urdu construction. The incomplete expression by this child indicated that from the very beginning children judge the way a language is spoken around and how to deliver a message in few words. The remaining children used this form in both the languages in most suitable manners.





The result of this age group indicated the negative response in both the languages. The respondent instead of making request asked question like roTi hE, روٹی دے دیں/دے دے ("Is there any bread?") instead of roTi de deN/de de, نے دیں/دے دے ("give me bread"). It also indicated the other ways of saying the same thing. The remaining children responded well.

0%		
0%		
0%		
0%		
0%	Request Form	Request Form
	Imperative (Urdu)	Imperative (Punjabi)
NR	0%	0%
IP	0%	0%
Ν	0%	0%
Y	100%	100%

Figure 4.61 Age Group (5.5 - 6.0)

The graphical representation of the last group of this research showed that the participants of this age group used Urdu and Punjabi imperative request form properly and according to the situation and this was the stage where most of their grammatical development reached to perfection.

4.2.2 Across the Group Analysis

After the representation of results of individual tense aspect morphology, infinitive and request form of all the respondents in their individual groups in both the languages now their groupwise overall morphosyntactic development is presented below to findout the real timeline for the development of the verb till six years.

4.2.2.1 Across the Group Analysis of Present Tense Acquisition

Present tense acquisition of Urdu and Punjabi is analysed at first step.

4.2.2.1.1 Across the Group Analysis of the Group Analysis of Urdu Present Tense Acquisition

At this point the results of all present tenses of Urdu including progressive, habitual and perfect were joined to show the groupwise acquisition of these tenses.

00% 80% 60% 40% 20%						
0%	Present Tense					
	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0
∎NR	0%	7%	5%	7%	2%	0%
∎IP	29%	14%	10%	5%	0%	5%
■N	2%	0%	0%	0%	0%	0%
ĭY	69%	79%	86%	88%	98%	95%

Figure 4.62 Across the Group Analysis of Urdu Present Tense Acquisition

The overall result of present tenses of all the respondents showed that from the beginning its acquisition value or proper use was increasing smoothly and the IP constructions which had higher values at initial stage decreased with the passage of time and 5.0 - 5.5 was the age which was important for development of Urdu present tenses among these children.

4.2.2.1.2 Across the Group Analysis of Punjabi Present Tense Acquisition

Now the combined results of whole past tense morphology of Punjabi is shown for their group wise analysis.



Figure 4.63 Across the Group Analysis of Punjabi Present Tense Acquisition

In Punjabi the children acquired the highest value of present tenses earlier at the age of 3.5 - 4.0 but in the next groups due to IP structurs and no responses the yes value decreased but in the end group again the increased values of present tenses could be observed which indicated that once the children acquired some formations they tried to use them in innovative way which increased overgeneralization or mixing or inference but that stage was transient and they came out of that stage with practice and exposure and the end result was the complete acquisition. It also indicated the direct relation between the age and production as discussed by Miller & Cuza (2013).

4.2.2.2 Across the Group Analysis of Past Tense Acquisition

Across the Group Analysis of Past Tense Acquisition of Urdu and Punjabi is as follows:

4.2.2.2.1 Across the Group Analysis of Urdu Past Tense Acquisition

00% - 80% - 60% - 40% -						
20% -	Past Tense (Urdu)					
	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0
NR	67%	61%	56%	44%	44%	78%
■IP	6%	6%	0%	11%	6%	0%
N	0%	0%	0%	0%	0%	0%
ĭ Y	28%	33%	44%	44%	50%	22%

Figure 4.64 Across the Group Analysis of Urdu Past Tense Acquisition

In Urdu past tenses the age group of 5.0 - 5.5 showed the highest values and here IP values were also decreased but the low values of the next age group did not indicate the slow development of past tense of Urdu rather that was concerned with the non- respondence. Secondly at this stage no IP construction could be observed which showed that the acquisition process was a gradual one, the more the child increased in age the less errors could be observed in his speech or use.

4.2.2.2.2 Across the Group Analysis of Punjabi Past Tense Acquisition

Figure 4.65	Across the	Group An	alysis of	Punjabi Past	Tense Acquisition
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. .

00% - 80% - 60% - 40% - 20% -						
0%	Past Tense (Punjabi)					
	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0
NR	61%	33%	61%	67%	67%	72%
∎IP	6%	0%	0%	11%	6%	0%
N	0%	0%	0%	0%	0%	0%
ĭY	33%	67%	39%	22%	28%	28%

In Punjabi language the ideal age or the most suitable age for past tense acquisition could be 3.5 - 4.0 while 4.5 - 5.5 was the time period where children did experiment in their speech and tried to use new constructions which were unacceptable in adult world but the further decrease in the use of past tenses were because of the use of the other forms.

The same phenomenon was discussed by Jensvoll (2003) who observed that children used present tense instead of past tense in uncertain situations.

Similarly the result of Punjabi past tenses are in line with Hammer (2010)'s and Paradis, Nicoladis, & Crego (2007)' studies where they have found that after three years children use past forms frequently which results in the difference of acquisition of past tense before four years in dominant language.

4.2.2.3 Across the Group Analysis of Infinitive Acquisition

4.2.2.3.1 Across the Group Analysis of Urdu Infinitive Acquisition

Figure 4.66 Across the Group Analysis of Urdu Infinitive Acquisition

00% – 80% –						
50% - 10% - 20% -						
0%	Infinitive	Infinitive	Infinitive	Infinitive	Infinitive	Infinitive
	3.0-3.5	(01du) 3.5-4.0	(Ordu) 4.0-4.5	(Ordu) 4.5-5.0	(Ordu) 5.0-5.5	(Ordu) 5.5-6.0
NR	75%	58%	75%	33%	42%	25%
∎IP	0%	0%	8%	0%	0%	8%
N	0%	0%	0%	0%	0%	0%
ĭY	25%	42%	17%	67%	58%	67%

The result of Urdu infinitive inflections showed that 4.5 - 5.0 period was suitable for their acquisition and 3.5 - 4.5 was the time period where children used atypical suffixes. The fluctuation in the results of infinitive acquisition was related with the infrequent use or non respondence of these forms while the presence of IP construction in the end group was related with the individual differences.

4.2.2.3.2 Across the Group Analysis of Punjabi Infinitive Acquisition

Figure 4.67 Across the Group Analysis of Punjabi Infinitive Acquisition



The same children due to Punjabi background showed better understanding of Punjabi inflections and from the first group the use of infinitive suffixes was notable and increased to the next group but the age of 4.0 - 4.5 showed less use of infinitive inflections. Only 4.5 - 5.0 age groups showed the IP construction. The reason might be the children's independence of choosing the construction of their own choice but afterwards the yes values increased till the end.

4.2.2.4 Across the Group Analysis of Imperative (Request Form) Acquisition

4.2.2.4.1 Across the Group Analysis of Urdu Imperative Acquisition

100% 95% 90% 85% 80% 75% Imperative Imperative Imperative Imperative Imperative Imperative (Urdu) (Urdu) (Urdu) (Urdu) (Urdu) (Urdu) 3.0-3.5 3.5-4.0 4.0-4.5 4.5-5.0 5.0-5.5 5.5-6.0 NR 0% 0% 0% 0% 0% 0% **∐**IP 0% 0% 0% 17% 0% 0% N 17% 0% 0% 0% 17% 0% ĽΥ 100% 83% 83% 83% 100% 100%

Figure 4.68 Across the Group Analysis of Urdu Imperative Acquisition

The graphical picture of the results of Urdu imperative request form showed that children of this study knew the most appropriate use of this form from the very beginning and at the age of 3.5 - 4.0, they used it in a correct manner, the way it was used by the elders. IP construction and the negative response in the next groups could be related with the other way of saying the same thing but did not indicate the use of inflection.

4.2.2.4.2 Across the Group Analysis of Punjabi Imperative Acquisition





The age wise result of Punjabi imperative request form showed that the children acquired and used it very early and 3.5 - 4.0 was the most suitable period for the perfect use of request form. And once the children had developed the grammatical knowledge

of how to use it they continued its use without any mixing if a sufficient opportunity of speech was provided to them.

4.2.3 Across the Language (Bilingual) Analysis

After within group and across the group analysis, across the language analysis of Urdu and Punjabi is presented below.

4.2.3.1 Across the Language (Bilingual) Analysis of Present Tense Acquisition

After the presentation of the results of all the children in both the languages separately now their bilingual acquisition of all these tenses, infinitive and imperative is presented through yes responses only to see to what extent these bilingual children have proper understanding of all these morphosyntactic categories.



Figure 4.70 Across the Language (Bilingual) Analysis of Present Tense Acquisition

The yes values of present tenses of both the languages of all these children showed that the acquisition of present tenses was not a smooth sail in these bilingual children. In the beginning Punjabi tenses were used properly but with the passage of time as these children got more opportunity to speak in Urdu, their proper use of Urdu present tenses increased and it excelled till the age 5.0 - 5.5. But in the end these bilinguals used IP construction in Urdu tenses otherwise they were developing present tenses in both the languages equally.

4.2.3.2 Across the Language (Bilingual) Analysis of Past Tense Acquisition



Figure 4.71 Across the Language (Bilingual) Analysis of Past Tense Acquisition

The result of past tenses in both the languages indicated that children acquired and used Punjabi past tenses earlier at the age of 3.5 - 4.0 as compared to Urdu tenses but with the passage of time they tried to express the video clipping in other tenses that is why the values fluctuated and between the age of 5.0 - 6.0, it remained on the same level while the use of Urdu past tenses by these bilinguals increased gradually. The decline in the use of these tenses by the last group was related with the avoidance of the production of these tenses by the respondents not with the non acquisition. While the studies done on the acquisition of English verb morphology also reveal that children cannot use tense and agreement morphology for a long time (Brown, 1973).

4.2.3.3 Across the Language (Bilingual) Analysis of Infinitive Acquisition



Figure 4.72 Across the Language (Bilingual) Analysis of Infinitive Acquisition

Bilingual acquisition of infinitive indicated that in the beginning the use of Punjabi infinitive inflection was higher than Urdu but at the age of 4.0 - 4.5 their bilingual use was equal. After this period they improved the use of infinitive inflections in both the languages between the age 4.5 - 5.0 to a considerable level which continued in Punjabi language but the further decline in the use of Urdu infinitive inflection was due to IP constructions of different sorts. As a whole bilingual children were better users of Punjabi infinitive. The difference might be due to the ease with which children produced Punjabi oblique infinitive inflection"-an", i_{i} instead of Urdu one which is "-ne", i_{i} .

Clark (2001) says that infinitives are acquired earlier but the complexity of inflection plays its role also. The delay in the acquisition of infinitive by these Urdu Punjabi bilinguals might be due to this complexity.

4.2.3.4 Across the Language (Bilingual) Analysis of Imperative Acquisition

Figure 4.73 Across the Language (Bilingual) Analysis of Imperative Acquisition



Bilingual results of both the languages showed that children acquired and knew the proper use of how to make a request quite early i.e. at the age of 3.5 - 4.0 which also proved the claim that bilingual children acquired imperative forms even before the acquisition of other verb forms. The variation in the use of these forms in both the languages by these bilinguals was due to IP constructions and some time the negative response by the respondents. Otherwise the end state of these bilinguals was balanced acquisition and use of imperative request form. The "shared semantic features" as discussed by Paradis, Nicoladis, Crego, & Genesee (2010) seemed to help the bilingual children in the earlier and quick acquisition of request form was discussed by Clark (2001) also.

4.3 Experiment 3 (Undu and Punjabi Agreement Acquisition)

It includes three categories i.e.

- a) Adjective-Noun Agreement
- b) Subject-Verb Agreement
- c) Object-Verb Agreement

The overall data for Urdu and Punjabi agreement acquisition was collected from all the six respondents within each age group separately which was further combined as single category and analyzed across the groups and across the languages (see Appendix 11.5.1.5 & 11.5.1.6 for responses and Appendix 11.5.3.5 & 11.5.3.6 for percentage and for interlinear morphemic glossing see Protocol for Adjective-Noun Agreement 9.4.3).

4.3.1 Within Group Analysis of Individual Categories

Within group analysis of agreement acquisition is presented below.

4.3.1.1 Within Group Analysis of Adjective-Noun Agreement Acquisition

To find out the answer of the question when and how children use pre modifier adjective and noun agreement in the immediate context, the analysis of Urdu and Punjabi adjective agreement with noun in gender, number and case as masculine & feminine singular & plural nominative, oblique forms of all the six groups separately is presented below. In Urdu when an adjective modifies a vocative noun it remains in oblique case (Schumidth, 1999) and in Punjabi the same use also exists and this case is rare in polite use (Cumming & Bailey, 2005).





This age group showed Urdu adjective noun agreement in IP or in process constructions more than the yes values. As in Urdu masculine singular nominative adjective-noun agreement the respondents aged 3;1, 3;2 used diminutive affix "-*i*", \mathcal{L} like *anDi*, جورٹا انڈہ (" small egg") to show smallness instead of *choTa anDA*, جهوٹا انڈ (" small egg") and predicative adjective as post modifier like *andA baRA*, انڈ (" egg big"). In oblique case they were still in the developmental process as the children aged 3;1, 3;2 had either used adjective as noun like *baRe ke andar*, انڈ (" in big one") or only noun like *anDe meN*, انڈ م میں (" in egg") while in plural nominative IP construction of Punjabi mixing like *doveN anDe*, دویں انڈ م دویں انڈ (" both eggs") or numeral adjective like *do anDe*, دو انڈ م ("two eggs") were used instead of attributive adjectives and the oblique form remained unused with its specific suffix.

In Punjabi this agreement showed better results in masculine singular and plural nominative case where the children aged 3;1 used either the appropriate suffixes or IP constructions of numbers which were unmarked adjectives like *do pagAane*, دو پگانے ("two balloons"). In singular oblique forms along with apt use of suffix, the IP constructions of adjective as noun like *vaDDe ic*, $\varepsilon^{\dagger} = 0$ ("in big one") or possessive pronoun like *in de vic*, $\varepsilon = 0$ ("in it") could be observed in children aged 3;2, 3;4 but the plural oblique could not be produced accordingly.

• In both the languages plural oblique case was unacquired by this group.

00% 80% 60% 40%								
20% - 0%	Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli
	Case Masculine Singular (Urdu)		Case Masculine Plural (Urdu)		Case Masculine Singular (Punjabi)		Case Masculine Plural (Punjabi)	
NR	0%	0%	0%	0%	0%	17%	0%	0%
■IP	0%	67%	17%	17%	0%	17%	0%	0%
N	0%	0%	17%	83%	17%	0%	0%	83%
ĭY	100%	33%	67%	0%	83%	67%	100%	17%

Figure 4.75 Age Group (3.5 - 4.0)

The result of Urdu agreement in masculine singular nominative case indicated that this was developed by this age group completely while the oblique case had more inter language interference like *vaDDe anDe ic*, $\varepsilon^{\dagger} = \frac{1}{2} ($ "in big egg") instead of *baRe anDe meN*, بڑے انڈے میں ("in big egg") which indicated that the children had the proper understanding of singular oblique case but due to influence of Punjabi language

they responded in that. The use of plural nominative inflection was also noteworthy while the respondents had shown unsatisfactory reply for oblique suffixes.

In Punjabi, masculine singular and plural nominative agreement was used almost in a suitable manner rather plural nominative earlier than singular while in singular oblique the production of adjective as noun like *vaDDe*, $\varepsilon^{\pm} - \sqrt{nikke}$ ic, ε^{\pm

 Now the children had started paying attention to the use of oblique inflection in both the languages.



Figure 4.76 Age Group (4.0 - 4.5)

The graphical results of adjective-noun agreement in the immediate context indicated that by this age the children had developed masculine singular nominative and oblique and plural nominative inflection in adult like speech in both the languages. Only plural oblique forms were still in the process of development in both the languages and the IP structure of adjective as noun was found in this group's morphosyntactic course of acquisition.



Figure 4.77 Age Group (4.5 - 5.0)

The results of this age group showed that only masculine plural oblique forms were not responded properly. In Urdu the children used singular oblique case in response mostly and one of the participants aged 4;7 used over generalized form like *AAnDeoN meN*, انڈیوں میں ("in eggs") instead of *anDoN meN*, انڈیوں میں ("in eggs") while in Punjabi the children aged 4;9, 4;11 who could not respond well, used singular oblique there like *vaDDe pagAane ic*, جگانے اچ

00% – 80% – 50% –								
20% – 0%	Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli
	Case Masculine Singular (Urdu)		Case Masculine Plural (Urdu)		Case Masculine Singular (Punjabi)		Case Masculine Plural (Punjabi)	
∎NR	0%	0%	0%	0%	0%	0%	0%	0%
∎IP	0%	33%	0%	0%	0%	33%	0%	0%
■N	0%	0%	0%	67%	0%	0%	0%	83%
ĭY	100%	67%	100%	33%	100%	67%	100%	17%

Figure 4.78 Age Group (5.0 - 5.5)

It was obvious from the results that the more the children were growing in age the more IP structures of different types could be found in their speech and the more rapid growth of linguistic items in Urdu could be detected in this age group. On the other hand in Urdu and Punjabi singular oblique cases, the children also used adjective as noun. Whereas plural oblique suffix was not fully generated by them rather singular oblique suffix was being used in most of the cases.



Figure 4.79 Age Group (5.5 - 6.0)

In Urdu the post modifier *anDA baRA*, انڈا بڑا ("egg big") was used by one of the respondents aged 5;7 in singular nominative and overgeneralization was also present like *AAnDeoN meN*, انڈوں میں instead of *anDoN meN*, انڈوں میں ("in eggs"). In

Punjabi the respondents aged 5;7 either used singular suffix in plural like *vaDDe GubAre ic*, وڈے غبارے اچ ("in big balloon") instead of *vaDDeaN GubAreaN ic*, وڈی ناچ or used English mixing like *vaDDe balUn ic*, خباریاں اچ ("in big balloon") or *choTe balUn*, چھوٹے بلون ("small balloons") other wise their morphosyntactic growth was note worthy in both the languages.

b) Within Group Analysis of Case Feminine Singular & Plural Acquisition

Now within group analysis of Urdu and Punjabi feminine singular and plural cases is discussed.



Figure 4.80 Age Group (3.0 - 3.5)

The graphical picture of this age group showed that the children used Urdu agreement in nominative cases without any error but the higher percentage of IP constructions showed that they were in the developmental process and some of them, aged 3;1, used singular forms like *choTi*, چهوٹی ("small") without any agreement and others aged 3;1, 3;2, 3;4 used Punjabi suffixes in Urdu like *choTiaN*, جهوٹی / *nikkiaN*, others aged 3;1, 3;2, 3;4 used Punjabi suffixes in Urdu like *choTiaN*, نکیاں / *vaDDiaN TokariaN*, وِدْيَان تُوكريان ("small / big baskets"). In oblique cases the children used either 3rd person singular pronoun *in de vic*, ان ان دے وچ ("small") e^x ("small").

 \circ As a whole this group had started using all the cases in both the languages.



00% - 80% - 60% - 40% - 20% -										
0%	Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli		
	Case Feminine		Case Feminine Plural		Case Feminine		Case Feminine Plural			
	Singular (Urdu)		(Urdu)		Singular (Punjabi)		(Punjabi)			
■NR	0%	0%	0%	0%	0%	0%	0%	0%		
∎IP	0%	17%	100%	67%	0%	0%	0%	17%		
■N	0%	0%	0%	17%	0%	0%	0%	0%		
ĭY	100%	83%	0%	17%	100%	100%	100%	83%		

The results of this group illustrated that here the children produced agreement in most of the cases properly. In Urdu agreement the singular cases were produced with much perfection as compared to the plurals where the children aged 3;9, 3;10, 4;0 used Punjabi suffixes like *choTiaN TokariaN*, پهو ٿيان ٿوکريان ("small baskets") along with *choTiaN TokariaN meN*, چهو ٿيان ٿوکريان مين ("in small baskets") and over generalization of Urdu suffix "-ieN", پهو ٿيان ٿوکريان الله *choTieN TokarieN*, چهو ٿيان ٿوکريان اله suffix "-ieN", الله choTieN TokarieN, چهو ٿين ٿوکرين اله choTieN tokarieN, الله عنه ("small baskets") in age 3;7. The reason of this code switching might be the commonality in the grammars of Urdu and Punjabi at the surface level, the phenomenon discussed by Gil, Eichler, Jansen, Patuto, & Muller (2012) in the acquisition of Romance languages.

While in Punjabi they produced almost all the agreements in appropriate manner except one respondent aged 3;11 in plural oblique case where she used number as IP construction like *doveN*, دوویں ("both").

• As a general development this age showed improvement in the acquisition process of adjective-noun agreement in both the languages.

00% - 80% - 60% - 40% -								
20% - 0% [Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli
	Case Feminine Singular (Urdu)		Case Feminine Plural (Urdu)		Case Feminine Singular (Punjabi)		Case Feminine Plural (Punjabi)	
NR	0%	0%	0%	0%	0%	0%	0%	0%
∎IP	0%	0%	100%	33%	0%	33%	33%	17%
■N	0%	17%	0%	50%	0%	17%	0%	17%
∎Y	100%	83%	0%	17%	100%	50%	67%	67%



The adjective-noun agreement in Urdu cases of this age group showed that the singular case is completely developed in these children while in plural one of the respondents aged 4;4 used inter language mixing more i.e. Punjabi inflections in place of Urdu like *nikkiaN TokariaN*, نكيان ٹوكريان ("small baskets") and *nikkiaN tokariaN meN*, نكيان ٹوكريان ميں ("in small baskets").

In Punjabi they used almost all the cases but again along with Urdu mixing in Punjabi context like *baRi guDDi meN*, بڑی گڈی میں ("in big doll") at age 4;5, overgeneralization of Urdu suffix "-ieN" ائیں could also be observed at age 4;4 like *choTiaN guDDieN*, چهو ٹیاں گڈئیں ("small dolls").

• In overall acquisition more mixing could be noticed in Urdu agreement in this group.



Figure 4.83 Age Group (4.5 - 5.0)

Within group analysis of this age group showed that agreement in Urdu plural case was in the developmental process as children were not only mixing Punjabi suffixes in Urdu like the previous group but a more variety of IP constructions could be observed in this age group as *choTieN TokarieN*, چهوتئيں ٹوکرياں and *choTieN TokariaN*, چهوتئيں ٹوکرياں ("small baskets") at age 4;8 which is over generalization of "-ieN" ائیں "inflection of Urdu.

In Punjabi the singular cases were fully acquired but in plural cases different types of IP constructions of inter language mixing like *choTieN guDDieN*, چهوٹئیں گڈ ئیں گڈ ئیں شی کڈ ئیں at age 4;9 could be noticed.

• As a whole plural cases would take some time to develop fully.



00% – 80% – 60% – 40% – 20% –										
0%	Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli		
	Case Feminine		Case Feminine Plural		Case Feminine		Case Feminine Plural			
	Singular (Urdu)		(Urdu)		Singular (Punjabi)		(Punjabi)			
NR	0%	0%	0%	0%	0%	0%	0%	0%		
∎IP	0%	0%	67%	50%	0%	17%	33%	0%		
N	0%	0%	0%	33%	0%	0%	0%	33%		
ĭY	100%	100%	33%	17%	100%	83%	67%	67%		

This is the first time when the agreement in Urdu singular showed the complete development while plurals had high values of IP constructions like the younger age groups. One thing could be noticed that these children overgeneralized the inflections differently. Some time they overgeneralize first part of the agreement i.e. attributive adjective like *choTieN*, جهو ثنين ("small") at age 5;1, *choTioN*, منه عنه عنه عنه عنه عنه عنه عنه وثنين توكر ئين ("small baskets") at age 5;1. The interlanguage mixing and intralanguage overgeneralization was also used by one of the respondents aged 5;4 in this age group like *choTiaN TokarieN*, جهو ثنيان توكر ئين ("small baskets").

While in Punjabi singular nominative case was fully used by the respondents while in plural, the same phenomenon of inter language mixing like *choTi guRiaN*, نوکری کڑیاں by the respondents aged 5;4, 5;6 could be observed. While in singular oblique case Urdu construction like *choTi Tokari meN*, چهوٹی گڑیاں ("in small basket") at age 5;4 could be observed. In plural case, singular oblique was used by the respondents.





The result of the last age group of this analysis presented that the development of adjective-noun agreement was either complete or in the process of acquisition with the mixing discussed earlier like *choTi TokarieN*, چوٹی ("small baskets") at age 5;9, 5;11, *choTiaN TokarieN*, چهوٹیاں ٹوکریٹں at age 5;10, *choTieN TokariaN*, چهوٹیک چوٹی ("small baskets") at age 5;11 and overgeneralization like *chotioN TokarioN meN*, توکریاں ("in small baskets") in Urdu plural cases.

• In Punjabi the use of agreement in both singular and plural cases was almost to the point with only two non responses.

4.3.1.2 Within Group Analysis of Subject and Object-Verb Agreement Acquisition

The analysis of subject-verb agreement and object-verb agreement shows that almost all the groups have used them in the most suitable manners except one in OVA so they are discussed in the across the group analysis.

4.3.2 Across the Group Analysis

Below is the presentation of across the group analysis of Urdu and Punjabi agreement acquisition.

4.3.2.1 Across the Group Analysis of Adjective-Noun Agreement Acquisition

Before the analysis of across the groups, the results of adjective-noun agreement in all the masculine and feminine [singular & plural (nominative & oblique] cases have been combined as a whole and then it is analysed as below:

4.3.2.1.1 Across the Group Analysis of Urdu Adjective-Noun Agreement Acquisition



Figure 4.86 Across the Group Analysis of Urdu Adjective-Noun Agreement Acquisition

The result of Urdu marked adjective-noun agreement in gender, number and case in the immediate context showed that there was a gradual and sequential development of this agreement. The more the children grew in age the lesser they used or produced IP constructions. Although these children had not displayed complete production till the last but the constant increase in the yes values indicated that their acquisition was normal and they had developed the basic structures of Urdu inflection in this particular context. It also indicated the correlation between the age and production as discussed by Miller and Cuza (2013).

4.3.2.1.2 Across the Group Analysis of Punjabi Adjective-Noun Agreement Acquisition

Figure 4.87 Across the Group Analysis of Punjabi Adjective-Noun Agreement Acquisition



In Punjabi the results of ANA showed that the children had acquired this agreement quite early like at the age of 3.5 - 4.0 they showed more than 80% positive responses and the mixing or overgeneralization also decreased with the passage of time as in the last group no IP construction could be noticed. So the children even at that early age had developed the double inflection which indicated the language acquisition as a natural process.

4.3.2.2 Across the Group Analysis of Subject-Verb Agreement Acquisition

Across the Group Analysis of Subject-Verb Agreement Acquisition of Urdu amd Punjabi is presented below separately:

4.3.2.2.1 Across the Group Analysis of Urdu Subject-Verb Agreement Acquisition

00% - 30% - 50% - 40% - 20% -										
0%	SVA (Urdu)									
	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0				
NR	0%	0%	0%	0%	0%	0%				
∎IP	0%	0%	0%	0%	0%	0%				
N	0%	0%	0%	0%	0%	0%				
ĭY	100%	100%	100%	100%	100%	100%				

Figure 4.88 Across the Group Analysis of Urdu Subject-Verb Agreement Acquisition

The graphical picture of the acquisition of Urdu subject-verb agreement showed that the children had the proper understanding of this agreement as even the youngest group of this analysis showed the perfect results which proved the claim of Brown (1973) that children of freer or less restricted word order languages (Urdu & Punjabi) observe the word order even at two word stage.

4.3.2.2. Across the Group Analysis of Punjabi Subject -Verb Agreement Acquisition

Figure 4.89Across the Group Analysis of Punjabi Subject-Verb AgreementAcquisition



The Punjabi SVA results also indicated the ease with which the children acquired this agreement as from the first till the last the children unanimously showed 100% results which indicated the smooth acquisition of SVA of richly inflectional languages like Punjabi.

4.3.2.3 Across the Group Analysis of Object-Verb Agreement Acquisition

4.3.2.3.1 Across the Group Analysis of Urdu Object-Verb Agreement Acquisition



Figure 4.90 Across the Group Analysis of Urdu Object-Verb Agreement Acquisition

The result of Urdu OVA shows that the children of 3.0 - 3.5 age group used mixed utterances. This mixing was of two types, some respondents aged 3;4 used Punjabi constructions in Urdu context like *mEN paRh liA e*, میں پڑ ہ لیا اے ("I have read") while others aged 3;1, 3;2 used intra sentential mixing like *kute nu lat mAri*, کتے کتے ("Kicked the dog") or *AApi ne chiiz diti e*, نوں لت ماری ("The sister has given thing"). But this mixing died out in the next age groups. This mixing also indicated the first step toward bilingual acquisition where children use intra or inter sentential mixing to fill the gap.

4.3.2.3.2 Across the Group Analysis of Punjabi Object-Verb Agreement Acquisition



Figure 4.91 Across the Group Analysis of Punjabi Object-Verb Agreement Acquisition

The analysis of Punjabi OVA also showed IP construction at the early stages of language acquisition but this IP was different from Urdu's as the children used elliptic structures like *e poni pAi e*, اے پونی پائی اے ("wore this pony") instead of *o ne poni pAi e*, اونے پونی پائی اے ("she has wore pony"). The shorter length of sentence is due to the younger age of the respondents. But mixing or overgeneralization of any type could not be observed in all the groups. As they grew in age they showed stable results.

4.3.3 Across the Language (Bilingual) Analysis

Across the language analysis of agreement is presented below:

4.3.3.1 Across the Language (Bilingual) Analysis of Adjective-Noun Agreement Acquisition

Only the yes (Y) values are taken for this analysis.

Figure 4.92Across the Language (Bilingual) Analysis of Adjective-NounAgreement Acquisition



The bilingual acquisition of adjective-noun agreement as a whole showed that there was a strong correlation between the age and ANA of these early simultaneous bilinguals because as they developed chronologically, they developed linguistically also. Although they could not reach to the perfection in either language but they equally grew morphosyntactically which indicates that their bilingual acquisition is of the same pace.

• This also indicates the late acquisition of ANA due to low type and token frequency as discussed by Eichler & Gill (2013).
4.3.3.2 Across the Language (Bilingual) Analysis of Subject-Verb Agreement Acquisition

Figure 4.93 Across the Language (Bilingual) Analysis of Subject-Verb Agreement Acquisition.



The bilingual SVA analysis of these children showed that the children from the very beginning had the awareness of this agreement without any confusion or any IP construction. Urdu and Punjabi are very similar languages with the same word order that is why children develop this agreement with ease and speed.

• The results of this study are inclined with the previous study done by Serratrice (2001) on English-Italian bilingual who showed no subject-agreement errors.

4.3.3.3 Across the Language (Bilingual) Analysis of Object-Verb Agreement Acquisition

Figure 4.94 Across the Language (Bilingual) Analysis of Object-Verb Agreement Acquisition.



The line chart showed the results of the transitive verb agreement with nominative direct object and the tense used was perfect. So it takes time to develop. The same could be viewed from the results as the first bilingual group i.e. 3.0 - 3.5

showed the developmental process of this agreement which was comparatively low in Urdu from Punjabi but in the next stage i.e. 4.0 - 4.5, amazing improvement could be noticed where both the languages indicated complete acquisition of this agreement and it remained constant afterwards.

• The results of OVA also point out the universal order of agreement acquisition discussed by Dean (2004).

4.4 Overall Summary of Acquisition

4.4.1 Experiment 1

Categories	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0	In Process Acquisitio n
Gender	Punjabi Feminin e	Punjabi Masculin e	Urdu Feminine			Urdu Masculi ne	
Number Masculine		Punjabi Plural		Urdu Plural			
Number Feminine	Punjabi Singular	Punjabi Plural					Urdu Singular & Plural
Case Masculine Nominativ e		Urdu & Punjabi Plural					
Case Feminine Nominativ e	Urdu Singular	Urdu & Punjabi Plural					
Case Masculine Oblique		Urdu & Punjabi Singular					Urdu & Punjabi Plural
Case Feminine Oblique		Urdu & Punjabi Singular		Punjabi Plural		Urdu Plural	
Case Masculine Vocative							Urdu & Punjabi Singular & Plural
Case Feminine Vocative	Punjabi Singular						Urdu & Punjabi Plural

Table 4.1Noun Acquisition (Individual Categories)

Categories	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0	In Process Acquisition
Gender		Punjabi				Urdu	
Number		Punjabi					Urdu
Case		Urdu & Punjabi Nominative					Urdu & Punjabi (Oblique & Vocative)

Table 4.2Noun Acquisition (Collective Categories)

4.4.2 Experiment 2

Table 4.3	Verb Aca	uisition (Individual	<i>Categories</i>)

Categories	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0	In Process Acquisition
Present Progressive		Punjabi			Urdu		
Past Progressive							Urdu & Punjabi
Present Habitual	Punjabi					Urdu	
Past Habitual							Urdu &Punjabi
Present Perfect							
Past Perfect							Urdu & Punjabi
Infinitive Nominative				Urdu		Punjabi	
Infinitive Oblique							Urdu & Punjabi

Categories	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0	In Process Acquisition
Present							Urdu & Punjabi
Past							Urdu & Punjabi
Infinitive							Urdu & Punjabi
Imperative		Urdu & Punjabi					

Table 4.4Verb Acquisition (Collective Categories)

4.4.3 Experiment 3

Table 4.5	Agreement Acc	quisition	(Individual	Categories)
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Categories (Adjective- Noun Agreement)	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0	In Process Acquisitio n
Masculine Singular Nominative Case		Urdu	Punjabi				
Masculine Plural Nominative Case		Punjabi	Urdu				
Masculine Singular Oblique Case				Urdu & Punjabi			
Masculine Plural Oblique Case							Urdu & Punjabi
Feminine Singular Nominative Case		Urdu & Punjabi					
Feminine Plural Nominative Case		Punjabi					Urdu
Feminine Singular Oblique Case		Punjabi			Urdu		
Feminine Plural Oblique Case							Urdu & Punjabi

Categories	3.0-3.5	3.5-4.0	4.0-4.5	4.5- 5.0	5.0- 5.5	5.5- 6.0	In Process Acquisition
Adjective-Noun							Urdu &
Agreement							Punjabi
Subject-Verb Agreement							
Object Verb Agreement		Urdu &					
object-vero Agreement		Punjabi					

Table 4.6Agreement Acquisition (Collective Categories)

CHAPTER 5

5 RESULTS AND ANALYSIS OF MONOLINGUALS

As discussed earlier in Pilot study the children from Punjabi background speak Punjabi before three years although they understand and comprehend Urdu very well. The objective of this study is to find out the normal developmental sequence of Urdu and Punjabi morphosyntax that's why the researcher selected 12 monolingual respondents including three males and three females from Punjabi background and the same from Urdu monolinguals who are from Punjabi background between the age of 2.5 - 3.0 to see the inflections or grammatical constructions of children. The same methodology was adopted for this age group and the results for noun, verb and agreement were obtained.

5.1 Experiment 1 (Urdu and Punjabi Noun Acquisition)

The overall result of morphosyntactic categories of noun like gender, number and case acquisition is presented below (see Appendix 11.5.2.1 & 11.5.2.2 for responses and Appendix 11.5.4.1 & 11.5.4.2 for percentage).



5.1.1 Gender Acquisition

In Urdu the respondents could not discriminate masculine from feminine and answered it as feminine. But feminine was used better. So the results showed that feminine gender was acquired earlier than masculine by this age group. The young children of this group had their own vocabulary for discrimination of certain objects as one of the respondents aged 2;9 discriminated between murGA, $\chi_{2,3}$ and murGi, $\chi_{2,3}$

("cock and hen") as *purAni murGi*, پرانی مرغی and *achi murGi*, اچهی مرغی ("old hen") and another as *kUkU*, کوکو and *hen*.

While in Punjabi, masculine had high value than feminine because two of the respondents aged 2;6, 2;11 could not discriminate masculine from feminine and answered kAkA, کاکا ("baby"), and *munDA*, منڈ ("boy") which indicated that Punjabi masculine was acquired earlier and better than Punjabi feminine by these respondents.



5.1.2 Number Acquisition

Figure 5.2Number Acquisition

In Urdu masculine singular number was acquired by the respondents fully but in masculine plural they either could not use plural inflection and responded like *ghoRA*, اتين ("horse"), although they used the number properly like *tiin ghoRA*, تين ξ_{ℓ} : ξ_{ℓ} ("horse"), although they used the number properly like *tiin ghoRA*, ξ_{ℓ} ("three horse" or three donkey") which indicated that they were in the stage of in process acquisition (IP) or due to the exposure of English animal names, half of the respondents replied as donkey which did not show their masculine plural acquisition in Urdu. The same was the case with feminine numbers. In singular they almost responded well except one respondent aged 3;0 who said kUkU, ξ_{ℓ} (self vocabulary) which could not indicate Urdu feminine singular but in feminine plural the acquisition or the use was just like masculine plural as the respondents either used uninflected forms like *murGi*, ξ_{ℓ} (*kUkU*, ξ_{ℓ} ("hen") or used it with number like *do murGi*, ξ_{ℓ} ("two hens") which showed their in process acquisition.

In Punjabi, masculine number acquisition was better as masculine singular number had been responded fully while the responses in masculine plural number also showed in process acquisition. The respondents used it properly in majority of cases only some time *munDA*, منڈا ("boy") at age 2;11 as uninflected form or *pAai*, y

("brother"), at age 2;6, 2;7 as unmarked form could be observed from the data. While feminine singular was also used in appropriate manner in most of the cases. Only one of the respondents aged 2;7 replied as tAtA, ناتا ("kAkA, كاك baby") which could not identify the feminine gender. In feminine plural their response was fully no (N) as they used uninflected form of feminine number like kuRi, کڑی ("girl") which showed that the respondents of this age group could not reach at the stage of acquiring feminine plural number that was kuRiaN, کڑیاں ("girls").

5.1.3 **Case Acquisition**

Figure 5.3

In case acquisition the analysis of masculine and feminine cases are discussed below.

100% 80% 60% 40% 20% 0% Nomi Obli Voca Nomi Obli Voca Nomi Obli Voca Nomi Obli Voca Case Maculine Case Masculine Case Masculine Case Masculine Plural (Punjabi) Singular (Urdu) Plural (Urdu) Singular (Punjabi) **■**NR 0% 0% 17% 0% 0% 17% 0% 0% 17% 0% 0% 33% 0% **IP** 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 67% 100% 100% 0% 100% N 33% 83% 0% 67% 83% 67% ∎Y 100% 33% 50% 0% 0% 0% 100% 33% 83% 17% 0% 0%

5.1.3.1 **Masculine Case Acquisition**

Masculine Case Acquisition

The results of the Urdu masculine singular cases showed that the respondents of this age group used the nominative case absolutely right but the oblique case was not used properly and responded differently as some aged 2;7 used uninflected form like ghoRA ke, گھوڑا کے ("on the horse"), the others aged 2;10, 3;0 replied in mixed way like Donki ke Upar, بارس کی کے اوپر ("the horse's") دونکی کے اوپر ("the horse's") and another response was the use of pronoun instead of noun like is ke Upar, کے اوپر ("on it") at age 2;9 instead of using ghoRe ke Upar, کھوڑے کے اوپر ("on it") کھوڑے کے اوپر While the vocative case was used by them in somewhat better way but again due to the use of English noun like donkey or nominative case like vERA, ويرثا ("bull") its results were low. The masculine plural case as a whole was not used properly. In nominative plural case the young children either used singular nominative like ghoRA, كَهورًا ("horse") or used the English nouns like horse which could not illustrate their inflection acquisition. Similarly in oblique cases the children aged 2;10, 3;0 used uninflected



forms like *ghoRA kA*, کھوڑ اکا ("the horse's") or *ghoRe kA*, کھوڑ (singular oblique) and 3rd person singular pronoun in oblique case like *us ko*, ااس کو ("to him"), or *vo*, $\circ \circ$ ("that") at age 2;9, 2;7 respectively. Same is with vocative case.

In Punjabi masculine singular, nominative and vocative cases were used by the participants of this age ideally but oblique case was used somewhat poorly like *kol*, کول ("with him") instead of *munDe kol*, منڈے کول ("with the boy") at age 2;6 or 3rd person singular pronoun in nominative case like "*O*", او ("that") at age 2;7. While in masculine plurals only the use of the nominative case could be observed in unmarked forms like *pAai*, المند ("brothers") otherwise the majority of respondents called as *kAkA*, ⁽¹⁾

5.1.3.2 Feminine Case Acquisition

00% 80% 60% 40% 20%												
070	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca
	Cas	e Femir	nine	Case F	eminine	Plural	Cas	se Femir	ine	Case F	eminine	Plural
	Singular (Urdu)		rdu)	(Urdu)		Singular (Punjabi)		(Punjabi))		
■NR	17%	17%	0%	0%	33%	33%	0%	0%	33%	0%	0%	50%
∎IP	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
■N	0%	67%	0%	67%	67%	67%	0%	50%	0%	83%	100%	50%
ĭ¥	83%	17%	100%	33%	0%	0%	100%	50%	67%	17%	0%	0%

Fi	gure	5.4	Feminine	Case A	Acquisition
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From the graphs above it could be observed that Urdu feminine nominative and vocative singular were used by the respondents to a remarkable level which indicated that they had already acquired nominative and vocative cases before reaching this age but the low value of oblique singular illustrated that this group had not developed its use because the children aged 3;0, 2;7 answered either in 3^{rd} person singular pronoun in nominative case like *ye*, \sim ("this"), *vo*, \circ , \circ ("that") or 3^{rd} person singular pronoun in oblique case like *is*, $\neg \psi e$, \sim ("this"). While this group had not acquired the feminine plural cases except the nominative, where they were using singular cases in place of plurals.

In Punjabi the singular case values were higher and there was a remarkable use of feminine singular oblique case but in plural they had not used the suffixes properly and multiple types of responses could be seen by this group in all the three case inflections.

5.1.4 Combined Result of Noun Categories (Gender, Number & Case)

Below is the combined result of all the categories of Noun.

5.1.4.1 Urdu Noun Acquisition

The same process of combining the three categories was done with this age group also i.e. gender category remained the same due to only two values (masculine / feminine) while in number category the responses of masculine and feminine singular and plural numbers were combined as a single category number (singular / plural) and in case category all the nominative cases [masculine and feminine (singular / plural)] were combined as one nominative case and same was applied to oblique and vocative case.





The result of Urdu monolinguals for gender category showed that the children acquired feminine category earlier than masculine category. It indicates the input, the use of this category in their environment. In number category, the children acquired singular category in a much better way as compared to plural category. The IP constructions in plural showed that they are in the process of acquisition. While in case category children found nominative and vocative cases easier to produce as compared to oblique case which they could not use properly.

5.1.4.2 Punjabi Noun Acquisition

The same process was done with the Punjabi morphosyntactic categories of gender, number and case.



Figure 5.6 Punjabi Noun Acquisition

The result of Punjabi gender category showed that children acquired masculine earlier as compared to feminine. Similarly in number category they acquired singular in a most appropriate way as compared to plural. The result of plural category showed that children were in the process of acquisition. In case category again Punjabi monolinguals found nominative and vocative cases easier to produce as compared to oblique case.

5.1.5 Across the Language Analysis of Gender, Number & Case Acquisition

To compare their development, the results of only yes (Y) responses of gender, number and case categories of the Urdu and Punjabi respondents in both the languages are presented.



Figure 5.7 Across the Language Analysis of Gender, Number & Case Acquisition

The results of all the three morphosyntactic categories of noun used by these monolinguals showed that the Punjabi respondents of this age were more verbal in the use of all these inflections as compared to Urdu respondents. The Punjabi children acquired gender, number and then case categories while Urdu children out performed in number category and then gender and case categories. One of the reasons might be that in Punjabi the same gender suffix is used for its modifier also that can facilitate the children for early acquisition as discussed by Clark (2001). The other reason might be the difference of morphological and lexical inflection in gender task of both the languages which is discussed ealier.

5.2 Experiment 2 (Urdu and Punjabi Verb Acquisition)

Below is the analysis of verb categories in both the languages (see Appendix 11.5.2.3 & 11.5.2.4 for responses and Appendix 11.5.4.3 & 11.5.4.4 for percentage).

5.2.1 Analysis of Present Tense Acquisition



Figure 5.8 Analysis of Present Tense Acquisition

The result of present tense of this age group told the way the children used and produced these tenses. In Urdu the children used perfect tense in a most appropriate manner and progressive suffix was also used in a remarkable manner while habitual tense was not responded by many children.

On the other hand in Punjabi also perfect tense was used most suitably and then habitual but in progressive IP constructions could be examined where one respondent aged 2;7 due to young age could not utter progressive tense and answered in sentences like *suttA e*, ستا ("sleeping") instead of *suttA peA e* ستا پیا اے, or *so rihA e*, ("is sleeping").

• In both the languages as a whole perfect tense inflection had been developed at this age.

5.2.2 Analysis of Past Tense Acquisition



Figure 5.9 Analysis of Past Tense Acquisition

The results of the past tenses used by this youngest age group presented that in Urdu they used the progressive tense more as compared to habitual and perfect tenses. So they found it easy to reveal the happenings in the video clip in progressive and perfect tense without using habitual tense.

While in Punjabi the children of this age group produced habitual and perfect tenses with the exclusion of past progressive. The reason might be the young age where they could relate past events little. But nobody had used incorrect forms in any of the past tense. The reason might be the use of restricted forms at this stage of linguistic development.

On the whole Urdu monolinguals used past tenses better as compared to Punjabi's.

5.2.3 Analysis of Infinitive Acquisition





The result of Urdu infinitive surprisingly showed better ratio of oblique infinitive as compared to nominative infinitive which was a default form. The observable fact is that, because these children are Urdu speaking and parents pay much attention in the formal production of young children that's why they might have used oblique infinitive more instead of nominative infinitive.

While in Punjabi the opposite results could be observed. The reason might be the same as Punjabi is an informal language that's why children learnt and used nominative forms more as compared to oblique.

5.2.4 Analysis of Imperative Acquisition

Figure 5.11 Analysis of Imperative Acquisition



The result of Urdu request form showed better performance with one IP construction by a respondent aged 2;10 and one no (N) response. The remaining children knew how to make request for something.

While in Punjabi more IP constructions could be observed as due to young age children use only nouns like *pEse*, پیسے دے دو ("money") instead of *pEse de do*, پیسے دے دو ("give me money") or *roTi*, روٹی ("bread") instead of full request form. The remaining message could be delivered through gestures.

In overall Urdu monolinguals out performed Punjabi monolinguals. It also indicates the direct relationship of age and linguistic development.

5.2.5 Across the Language Analysis of Present, Past, Infinitive & Imperative Acquisition

This is the result of only yes (Y) responses of present and past tenses (indicative mood) and infinitive and imperative mood (request form) of the monolingual respondents in Urdu and Punjabi.



Figure 5.12 Across the Language Analysis of Present, Past, Infinitive & Imperative Acquisition

The Urdu respondents showed better understanding of verb morphosyntactic categories as compared to Punjabi respondents. The sequence of acquisition of these inflections was the same in both the languages. But Urdu monolinguals seemed to display the Generativists assumption that children from the very beginning display adult like knowledge of tense-marking morpheme (Pine, Joseph, Lieven, & Serratrice, 2008). While Punjabi monolinguals proved the Constructivists assumption that children show "partial knowledge of tense marking morphemes (Wilson, 2003)". While the use of infinitive inflection in both the languages was the same. In imperatives Urdu participants were more aware of its proper use as compared to Punjabi participants. But unlike Soriente (2014) and Moyna (2009)' studies all the children of this group learnt tense aspect morphology earlier than infinitive and imperative forms.

5.3 Experiment 3 (Urdu and Punjabi Agreement Acquisition)

Below is the analysis of agreement acquisition of both the languages (see Appendix 11.5.2.5 & 11.5.2.6 for responses and Appendix 11.5.4.5 & 11.5.4.6 for percentage).

5.3.1 Analysis of Adjective-Noun Agreement Acquisition

First of all masculine case agreement is analyzed below:

5.3.1.1 Analysis of Case Masculine Singular & Plural Acquisition

00% – 80% – 60% – 40% – 20% –								
0%	Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli
	Case M Singula	asculine r (Urdu)	Case Masc (Ut	uline Plural du)	Case M Singular	asculine (Punjabi)	Case Masc (Pur	uline Plural 1jabi)
NR	0%	0%	0%	0%	0%	17%	17%	33%
∎IP	17%	0%	67%	0%	33%	0%	33%	17%
■N	0%	83%	0%	100%	50%	83%	33%	50%
∎Y	83%	17%	33%	0%	17%	0%	17%	0%

Figure 5.13 Analysis of Case Masculine Singular & Plural Acquisition

The Urdu respondents showed attributive adjective agreement with noun in masculine singular nominative case to astonishing level which was almost complete at 3.0 of age and the oblique case had been started developing in this age group. In plural nominative case, children used adjectives as noun mostly like *choTe hEN*, $\varphi = \varphi = \varphi$ ("They are small") instead of using it in agreement with noun. But the oblique case was not used by any respondent properly rather they aged 2;9, 2;10, 3;0 either used 3rd person singular possessive pronoun which was used as a grammatical adjective like *is ke andar*, الس كے اندر ("inside it") or singular oblique form as *baRe anDe meN*, $\varphi = \psi = \varphi$ ("in big egg") as a response at age 2;10.

In Punjabi the graphs of attributive adjective-noun agreement in gender, number and case showed that the respondents had not developed any of them appropriately although the respondents had used them in masculine singular & plural nominative forms and their no (N) and IP responses were higher than the yes (Y) because they, aged 2;7, 2;6; 2;8 either used adjective as noun like *nikke*, $i = \sum_{i=1}^{N} i^{(i)} choTA$, $i = \sum_{i=1}^{N} i^{(i)} i^{(i)}$ or only noun like *pAanA e*, $i = i^{(i)} i^{(i)} i^{(i)}$ or uninflected form with numeral like *do pArA (GubArA)*, $i = \sum_{i=1}^{N} i^{(i)} i^{(i)} i^{(i)}$.

5.3.1.2	Analysis of	Case Feminine	Singular &	k Plural A	Acquisition
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Figure 5.14	Analysis of	Case Feminine Singular	& Plural Acquisition
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00% - 80% - 60% - 40% - 20% -								
0%	Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli
	Case Fe Singula	eminine r (Urdu)	Case Femin (Ur	nine Plural du)	Case Fe Singular	eminine (Punjabi)	Case Femi (Pun	nine Plural jabi)
NR	0%	0%	0%	17%	0%	50%	17%	50%
∎IP	33%	0%	33%	0%	50%	0%	33%	0%
N	0%	67%	67%	67%	17%	50%	50%	50%
ĭ¥	67%	33%	0%	17%	33%	0%	0%	0%

This group showed a better understanding of adjective noun agreement in singular nominative case and "wala constructions" could also be observed from data. It also showed the use of oblique case but plural forms were not used by any respondent rather only adjective like *choTi*, چهو ٹی ("small") or the singular forms were used.

In Punjabi most of the children used adjective as a noun like *choTA* e, چپوٹا اے, *nikki* e, نکی اے ("This is small") and in oblique plural they either could not answer or reply in singular noun like *guDDi*, گٹی ("doll") without any adjective.

• In both the languages the participants had the better idea of agreement in nominative case.

5.3.2 Across the Language Analysis of ANA, SVA & OVA Acquisition

This is the result of yes (Y) responses of adjective-noun agreement, subjectverb agreement and object-verb agreement of all the respondents of this age group in both the languages.



Figure 5.15 Across the Language Analysis of ANA, SVA & OVA Acquisition

Here again the Urdu participants showed earlier and better understanding of all three types of agreements. The sequence of their acquisition is different from Punjabi monolinguals because they acquired subject and object-verb agreement simultaneously and adjective-noun agreement was in the process. While in Punjabi only subject-verb agreement was acquired fully, object-verb agreement was used in a better way but adjective-noun agreement was used in the lowest ratio. The low type token frequency of this agreement might be the result of this ratio in both these languages.

5.4 Overall Summary of Acquisition

The tables below present the over all summary of acquisition including individual and collective categories:

5.4.1 Experiment 1

Table 5.1Noun Acquisition (Individual Categories)

Categories	2.5-3.0
Gender	In Process
Number Masculine	Urdu Singular & Punjabi Singular
Number Feminine	In Process
Case Masculine Nominative	Urdu & Punjabi Singular
Case Feminine Nominative	Punjabi Singular
Case Masculine Oblique	In Process
Case Feminine Oblique	In Process
Case Masculine Vocative	In Process
Case Feminine Vocative	Urdu Singular

Table 5.2Noun Acquisition (Collective Categories)

Categories	2.5-3.0
Gender	In Process
Number	In Process
Case	In Process

5.4.2 Experiment 2

Table 5.3Verb Acquisition (Individual Categories)

Categories	2.5-3.0
Present Progressive	In Process
Past Progressive	In Process
Present Habitual	In Process
Past Habitual	In Process

Present Perfect	Urdu & Punjabi
Past Perfect	In Process
Infinitive Nominative	In Process
Infinitive Oblique	In Process

Table 5.4Verb Acquisition (Collective Categories)

Categories	2.5-3.0
Present	In Process
Past	In Process
Infinitive	In Process
Imperative	In Process

5.4.3 Experiment 3

Table 5.5Agreement Acquisition (Individual Categories)

Categories (Adjective-Noun Agreement)	2.5-3.0
Case Masculine Nominative Singular	In Process
Case Masculine Nominative Plural	In Process
Case Masculine Oblique Singular	In Process
Case Masculine Oblique Plural	In Process
Case Feminine Nominative Singular	In Process
Case Feminine Nominative plural	In Process
Case Feminine Oblique Singular	In Process
Case Feminine Oblique Plural	In Process

Table 5.6Agreement Acquisition (Collective Categories)

Categories	2.5-3.0
Adjective-Noun Agreement	In Process
Subject-Verb Agreement	Urdu & Punjabi
Object-Verb Agreement	In Process

CHAPTER 6

6 DISCUSSION ON MORPHOLOGICAL PRODUCTIVITY

6.1 Error Analysis of Bilingual Groups

In this study the morphosyntactic development of children acquiring Urdu and Punjabi as L1 has been observed under the Constructivists' framework which is a bottom up approach of inflection acquisition. Different phenomena of morphological productivity which are considered as errors in adult world as discussed by the researchers of different languages related to this acquisition for so long, can also be observed in the present research which are to be discussed here.

6.2 Overextension

Overextension is an error where in early acquisition a child denotes different things with a single label not used by adults and these errors also point out the sense of object word in the child's mind (Kuczaj, 1999). This common phenomenon is restricted to the particular nouns only and is used by the children for two functions i.e. it can be used for "expressing categorization and concept formation" and also for showing "the relational meaning" (Rescorla, 1980). In this particular research "A categorical over-inclusion" type of overextension like *koki*, $\leq \geq \geq \sim$ ("cock") to all cocks and hens at age 3;1 where that overextended word is closely resembled to the referent in the real world, can be observed.

Generally children use overextension in the acquisition of those highly frequent words which are acquired early as compared to those acquired late but the errors appear late, not in early months of production. The reason behind is the generalizations which children make in acquisition process (Rescorla, 1980).

6.3 Misapplication of Gender Marking in Noun

The blingual respondents of this particular research also exercised the misapplication of gender marking in noun where masculine marking is more overapplied in almost six places in Urdu and Punjabi context as compared to feminine marking i.e. children of different age group like 3;7, 3;10, 4;4, 5;4, used *kukaR*, $\geq <$ ("cock") instead of *kukaRi*, ککڑ ("hen"). While the misapplication of feminine instead of masculine marking in three cases like *kuRiaN*, منڈ ("girls"), instead of *munDe*, خڑ ("boys") at age 4;7, *kukaRi*, ککڑ ("hen") instead of *kukaR*, ناف ("cock") at age 4;4 can also be observed. This inconsistency in the use of proper gender by the children is considered as a normal phenomenon in the developmental process as this might be the result of "an approximation to the correct gender identification" (Brehmer & Rothweiler, 2012).

The high rate of errors of masculine over-use is not related with the young age rather related with the use of default form in places where children cannot judge gender class from the pictures shown to them. The similar misapplication of masculine default form in elder children has been reported for Polish-German bilingual children (Brehmer & Rothweiler, 2012).

6.4 Use of Bare Stem Forms

Another type of errors observed in this particular work is the use of bare stem forms in Urdu number marking as the numeral + bare stem form like *do ghoRA*, ادوگهوژا ("two horse"), which is observed even till age 3;7. While in feminine, plural marking is missing till 3;5 age group like *kukaRi*, ککڑی ("hen") instead of *kukaRiaN*, ککڑیاں ("hens") and a child of 5;11 also used *do laRki*, دو لڑکی ("two girl"), as bare stem. While in Punjabi, feminine plural marking is missing till 3;1 age.

The reason for this type of errors of omission given by the advocates of dual model system is that before the acquisition of default rule and in the absence of proper inflected form in child's memory, he will produce bare stem forms and the moment he learns the default rule these forms disappear from his speech (Pinker, 1999) while the proponents of schema based model think that due to early use of product-oriented schemas the children omit noun inflections where the base form resembles to existing inflected schemas and it is a time taking process which continues even after the productive use of inflection and gradually disappears from the child's speech with the help of type and token frequency (Mathews & Theakston, 2006).

The observations of bare stem form used by children in the present research favor the schema based model as even at age 5;11 children are committing error of omission indicating it a gradual process which is affected by token frequency of this noun although in oblique plural case form the child has used *laRkioN*, لڑکيوں ("girls") but the point of resemblance of base form along with other factors as discussed by Mathews & Theakston (2006) are not observed here.

6.5 Over generalization of Plural Suffix

In the use of unmarked inflection in marked stems children overgeneralized Urdu plural suffix i.e."– ieN", الني which is used productively by the children e.g. in number plural like *murGieN*, مرغني ("hens") at age 5;9, in Punjabi *kukaRieN*, المحكوثين ("hens") at age 4;9. Similarly *billieN*, بلئي ("cats"), *kuRieN*, كُرْئيس ("girls"), *laRkieN*, ("girls"), in nominative plurals only by the children aged 4;8, 5;1, 5;10, and *laRkieN*, الرُكني ("girls"), in nominative and vocative plurals but not in oblique by the children aged 4;4, 4;9, 5;0, 5;2. Likewise *laRkieN ne*, الرُكني ("by the girls") at age 5;2, *kuRieN ne*, كَرْئي نور "girls") at age 4;10 in oblique plurals can also be observed.

At phrase level in adjective noun agreement or noun phrase (NP) the examples of this type of overgeneralizations can also be observed like *choTieN TokarieN*, چهوٹٹیں ("small baskets") instead of *choTi TokariaN*, ٹوکر ئیں ("small baskets") at age 3;7, 4;9, 5;1, *choTieN guDDieN*, چهوٹٹیں گڈئیں *guDDiaN*, چهوٹیاں گڈ یاں ("small dolls") at age 5;1.

The proponents of dual route model (Clahsen,1999; Pinker & Ulman, 2002) explain this phenomenon as a result of one default rule but in Urdu and Punjabi languages which are highly regular languages there is no one default rule of plural formation and children have overgeneralized the inflection not used in marked or known stems. So single route model or schema based learning (Krajewski, Theakston, Lieven, & Tomasello, 2011) seems to explain this phenomenon in a better way which argues that this pattern of plural marking is the result of children's generalization about product-oriented and source-oriented schemas which some time make them create novel utterances with the help of semantic features which are unacceptable in the adult world.

6.6 Case Marking Errors

In case marking errors instead of using accusative case in place of nominative as observed by the researchers of other languages, in present data in noun acquisition, oblique singular is used instead of oblique plural like *ghoRe ke Upar*, گھوڑ کے کے اوپر ("on the horse") instead of *ghoRoN ke Upar*, کھوڑوں کے اوپر ("on the horses") at age 3;7 & 5;9, in feminine *laRki ne*, لڑ کی نے ("by the girl"), instead of *laRkioN ne*, لڑ کیوں نے ("by the girls") at age 3;7, in Punjabi *laRki ne*, اڑ کی نے ("by the girls"), instead of *laRkiaN ne*, الڑ کی نے ("by the girls") at the age 5;4, *kuRi kol*, کڑی کڑی ("to the girl"), instead of *kuRiaN kol*, کڑی کر ("to the girls"), at age 3;9.

While in ANA the examples like *choTi Tokari meN*, جهوڻی ٹوکریوں میں instead of *choTi TokarioN meN*, چهوٹی ٹوکریوں میں ("in small baskets") at age 5;4 or *vaDDe pagAne vic*, وڈ ی پگانے اچ instead of vaDeaN pagAneaN vic, وڈ ی پگانے اچ instead of vaDeaN pagAneaN vic, وڈ ی پ پانے اچ at age 4;9, 4;11 can be notified. The reason may be the late acquisition of oblique case by the children. The errors continue till school years and are considered as "late production errors" (Clark, 2016).

6.7 Omission of Auxiliaries

Omission of auxiliaries is another observable fact in these bilinguals. In Punjabi past habitual tense *utte jAndA*, اتے جاندا سی instead of *utte jAndA si*, اتے جاندا سی ("He went upwards") at age 3;1, similarly in Punjabi present habitual examples like *o jAndi*, او الا ("she go") instead of *o jAndi e*, او جاندی اے ("she goes") at age 3;2 can be observed. This indicates the earlier acquisition of imperfective aspect marking than tense marking. Similarly in Urdu infinitive *khelnA*, کھیلنا ("has to play") at the age of 4.10 is produced.

The Generativists claim that although children have innate knowledge of grammar but they have to learn the rule of auxiliaries. While Tomasello (2000)'s usage based model argues that children from " item specific construction" learn form-meaning pairing and their use of copola "be", auxiliary "BE" is constraint by these constructions present in the input. They use only those inflections correctly for which they get proper input and commit tense-agreement errors where they get insufficient input and the most commonly used auxiliaries and inflections are acquired by children effortlessly and quickly as compared to uncommon one. The result may be less rate of errors which are called as "omission of tense / agreement-bearing morphemes" "in high frequency auxiliaries and inflectional endings" (Ambridge and Lieven, 2011).

6.8 Subject-Verb Agreement Errors

In this present research the SVA errors are also produced by the children as *do laRki bEthi hEn*, دو لڑ کی بیٹھی ہیں ("Two girl are sitting") at age 5;9 and *dono munDA khel rehe hEn*, دونوں منڈا کھیل رہے ہیں رہے ہیں دونوں منڈا کھیل رہے ہیں دونوں منڈا کھیل رہے ہیں ("Both the girl are sitting") at 5;9. The Generativists like Wexler (1998), argue that the low rate of subject-verb agreement errors indicate the productive use of inflectional morphology by children in early stages while the Constructivists denote this phenomenon to memory loss for a time being and also to unproductivity in this particular context.

6.9 Interference or Transfer

As discussed earlier bilingual children some time use endings of one inflectional system in other. It is observed that this type of interference or transfer from one language to the other during language development is temporary, for a time being and not permanent (Baker, 2011), and this transfer or mixing in bilingual children is from simple structured language to more complex language (Bailystok, 2001) or from strong to weaker language (Yip & Mathews, 2016).

Although both the languages of this research are equally complex but the phenomenon of ending mixing can be observed in this data like the inflection of Punjabi "-eaN" الجاب has been overgeneralized by the respondents in Urdu masculine oblique plural like *ghoReaN nuN*, کھوڑیاں نوں ("to the horses"), instead of *ghoRoN ko*, کھوڑیاں نے at age 4;5 and *laRkeaN ne*, الڑکیاں نے *ke*, ke, خ instead of *laRkoN ke*, کوں نے the boys") at age 5;10, 5;11.

While at phrase level in noun phrase NP (ANA) the mixing of this sort as discussed earlier (chapter 6) can also be observed like the children aged 3;9, 3;10, 4;0 used Punjabi suffix *choTiaN TokariaN*, چهو ٹیاں ٹوکریاں ("small baskets") and *choTiaN TokariaN meN*, چهو ٹیاں ٹوکریاں میں ("in small baskets") in urdu context and Urdu ending *choTiaN guDDieN*, چهو ٹیاں گڈئیں ("small dolls") in punjabi context at age 4;4.

6.10 Intra Sentential Mixing

In Urdu data examples of intra sentential mixing of Punjabi like *hath lA rahA thA*, لته لا ربا تها ("was touching") at age 4;7, *chilke saTtA thA*, هته لا ربا تها ("He threw husks") at age 5;6, and *lamme peA thA*, لمے پیا تھا (" was lying") at age 3;4 and 3;7 can be monitored. In the same way in Punjabi data examples of Urdu mixing like *kholiA thA*, *thA*, *thA*,

 So it can be said that their use of "bilingual bootstrapping" specifies the "Interdependent Grammar" as discussed earlier and intra sentential mixing which is considered to be systematic but due to underlying grammatical restriction children commit such errors which points out the knowledge of two separate language production systems among these bilinguals.

6.11 Error Analysis of Monolingual Group

The respondents of this age group also committed errors like that of the elder respondents for example overextension errors can also be seen as the use of noun *kAkA*, "(baby") in all context for human beings by a respondent aged 2;6 and another respondent aged 3;0 used *kUkU*, $\geq 2 \geq 2$ ("cock") for all the cocks and hens.

Similarly gender errors in noun acquisition were also observed as the over use of masculine in place of feminine like *munDA*, منڈ ("boy") instead of *kuRi*, کڑی ("girl") by a child aged 2;11 and *pAai de*, پائی دے ("to the brother") instead of *kuRi de*, کڑی دے ("to the girl") at age 2;8. One of the respondents went the other way round by over using feminine in lieu of masculine like *purAni murGi*, پرانی مر غی ("old hen") instead of *murGA*, مر غا ("cock") at age 2;9.

While the examples of uninflected forms could also be scrutinized in number marking where in Urdu masculine plural, bare stem forms like *tiin ghoRA*, تين گهوڑا ("three horse") by a respondent aged 2;10, *munDA*, منڈا ("boy") in age 2;11 as uninflected form or *pAai*, پائی ("brother") at age 2;6, 2;7 as unmarked form and in feminine plural like *do murGi*, دو مر غی ("two hen") by the children aged 2;9, 2;10 could be observed from the data. While in Punjabi, feminine plural was missing till 3.0 age as they used uninflected form of feminine number *kuRi*, کڑی ("girl") instead of kuRiaN, کڑیاں While in ANA uninflected form with numeral like *do pArA (GubArA)*, دو پارا ("two balloon") by a respondent aged 2;8 can be observed.

In case marking errors oblique plural case was not developed in this group as uninflected form like *ghoRA ke*, کھوڑ اکے ("on horse"), *ghoRA kA*, ٹھوڑ اک ("horse's") or singular oblique like *ghoRe Ka*, کھوڑ کے ("horse's") at 2;7, 2;9 can be observed. In ANA singular oblique form as *baRe anDe meN*, بڑے انڈے میں ("in big eggs") instead of *baRe anDoN meN*, بڑے انڈوں میں ("in big eggs") at age 2;10 are present.

In the omission of auxiliaries type of errors the youngest respondents aged 2;6, 2;7 of this age group produced sentences like *KuRi khandi*, کڑی کھاندی ("The girl eat") instead of *kuRi khandi e*, کڑی کھاندی اے ("The girl eats") and *Kam kardi*, کم کردی اے کم کردی ("She work") instead of *kam kardi e*, کردی اے م کردی اے ("She work") which indicates that they have acquired imperfective aspect before tense marking.

• The mechanism behind all these errors is in line with the earlier discussion of Constructivism (usage based).

CHAPTER 7

7 CONCLUSION

The close observation of Urdu and Punjabi morphosyntactic development by children reveals that much of data of this particular work supports Constructivists' (usage based) point of view.

In noun morphosyntactic development, the results of gender (masculine and feminine), number [masculine (singular / plural) and feminine (singular / plural)] and case [masculine singular and plural (nominative, oblique & vocative)] and feminine singular and plural (nominative, oblique & vocative)] categories show that the acquisition of these grammatical categories is a gradual process not an instant development like the one expected by the Generativists. The children of last group are still in the process of acquiring Urdu feminine number (singular and plural) and Urdu and Punjabi masculine and feminine vocative plural case. Similarly the acquisition of the most frequently used inflections is earlier as compared to those used infrequently. Like in gender category, feminine is acquired earlier as compared to masculine in both the languages. In the same way masculine and feminine vocative cases which are not used frequently in normal mode of speech rather indirect expressions are used. That's why children could not use it. Likewise feminine oblique case is acquired earlier than masculine oblique case in both the languages by these bilingual children.

In verb morphosyntactic development, present and past tenses are in the process of acquisition which indicates Constructivists' argument of restricted familiarity of tense-agreement morphology at young age (Wilson, 2003) although present progressive and habitual tenses are acquired before six years. The same is the case with infinitive also as children acquire grammatical forms only when they have enough vocabulary and usage rather than the familiarity with the rules (Ellis, 2008). This is the reason Urdu and Punjabi infinitive nominative inflection is used earlier as compared to infinintive oblique inflection. When the children got the exposure of Urdu language along with Punjabi they made the generalization of common morphological inflections which they found in available input in every direction and the examples of those generalizations are mentioned earlier. These overgeneralizations continue till school years.

Complexity of inflections is another phenomenon observed in this research especially in adjective-noun agreement which has taken more time in acquisition as compared to subject-verb agreement and object-verb agreement and supports the constructivists' assertion that children use only those inflections correctly for which they get proper input (Ambridge & Lieven, 2011). As children used masculine singular and plural nominative adjective-noun agreement quite appropriately and early in their speech but masculine and feminine plural oblique adjective-noun agreement in both the languages due to complex inflection could not be used properly.

The results of monolingual childen also highlight the importance of proper input as they have acquired many of the categories like masculine singular number, masculine singular nominative case, present perfect tense and subject-verb agreement in the same sequence and rate in both the languages.

Bilingual children also follow the same sequence of many of the morphosyntactic categories in both the languages which indicates that bilingual acquisition is similar to monolingual development. Likewise the "Grammatical Interdependence" seems to accelerate the bilingual acquisition of these children as the categories which have more similar inflections in both the languages such as masculine plural nominative, masculine singular oblique, feminine plural nominative, feminine singular oblique cases, imperative and in adjective-noun agreement masculine singular oblique, feminine singular nominative cases while subject as well as object-verb agreement are acquired at the same time by these bilingual respondents.

Since all these respondents are from Punjabi background and they have Punjabi as dominant language before they enter school therefore their Punjabi data shows better understanding of Punjabi inflections as compared to Urdu in the early years but as soon as they get more chance of practice in Urdu, they improve Urdu morphosyntactic acquisition pointing out the development of two autonomous systems of language use and also indicate the factors mentioned earlier like more prestige, cultural pressure, more positive attitude towards Urdu language. More use of Urdu language in Lahore instigates its acquisition among these bilinguals. It also shows that 3.5 - 4.0 is the most suitable period for the development of most of the morphosyntactic categories in both the languages.

Concluding, the results of this research can be helpful for speech pathologists practising children with speech impairment. For example those who have stutting, clutting, apraxia or alailia problem can start with simple, easy inflections and then complex inflections with low speed. Like wise in gender category, lexical differences are easier to acquire as compared to morphological differences which are complex and take more time. So they can be practiced in this sequence. Similarly feminine gender category may be experienced first as compared to masculine gender category so that children may have better idea of gender differences properly. While in number category masculine and feminine singular numbers can be started earlier. In tenses, perfect tense can be initiated in these children.

Same can be kept in mind while developing the curriculum for children at primary level as this will be helpful for getting proper, better output by making them self regulated, self efficient learners who can get academic success athrough their practice of learning during initial, middle and final stages.

Moreover, as a further research, the acquisition of the other elements of grammatical categories in these languages like unmaked suffixations, subjunctive mood, voice, etc. can be explored. Even the acquisition of other elements of grammar like the impact of honor / respect element on sentence structure, long distance agreement etc. can also be looked into. Secondly, as the situation of bilingualism is present in almost every area of Pakistan, where along with mother tongue children acquire national language also; it makes the investigation possible for other language combinations. Thirdly, bilingual acquisition in areas where medium of instruction is mother tongue like Sindhi and Pashto etc. can be worked out with other language theories present in Literature. Thus this research is a milestone for exploring new horizons of child language acquisition.

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9 APPENDIXES

9.1 Picture DescriptionTask



Number (Masculine Singular)





Number (Masculine Plural)



Number (Feminine Singular)





Number (Feminine Plural)



Case [Masculine Singular (Nominative / Oblique / Vocative)]



Case [Masculine Plural (Nominative / Oblique / Vocative)]



Case [Feminine Singular (Nominative / Oblique / Vocative)]





Case [Feminine Plural (Nominative / Oblique / Vocative)]



CATEGORY VERB

Verb Present (Progressive Masculine Singular)



Verb Present (Progressive Masculine Plural)



Verb Present (Progressive Feminine Singular)



Verb Present (Progressive Feminine Plural)



Verb Present (Perfect Masculine Singular)





Verb Present (Perfect Masculine Plural)



Verb Present Perfect (Feminine Singular)



Verb Present Perfect (Feminine Plural)





9.2 **Demographic Information Questionnaire for Participant's Mother** 1. Name ------ (Name will not be used publically. It is only for further response). 2. Since how long have you been in Lahore? _____ 3. Which language is spoken by you and the child's father? _____ 4. What is the range of child' siblings' age? _____ What is the number of this (target) child at home? 5. _____ 6. What is the age of this (target) child? _____ 7. What is the dominant or preferred language of this child (Urdu, Punjabi)? _____ 8. When did the child become aware of the other language (Urdu, Punjabi)? _____

Age Group	2	8.5- 3.0	3.0- 3.5	3.5- 4.0	4.0- 4.5	4.5- 5.0	5.0- 5.5	5.5- 6.0
Language (Monolingual / Bilinguals)	Mono (Urdu)	Mono (Punjabi)	Bi	Bi	Bi	Bi	Bi	Bi
Respondent's initial	AR	EI	AS	ME	SW	UA	MH	AJ
Respondent's age	(2;7)	(2;6)	(3;1)	(3;7)	(4;3)	(4;7)	(5;1)	(5;7)
Respondent's initial	DA	HN	SD	UJ	MN	MF	TA	SN
Respondent's age	(2;9)	(2;6)	(3;1)	(3;7)	(4;3)	(4;8)	(5;2)	(5;7)
Respondent's initial	SA	НА	SL	FQ	IF	FF	AA	JA
Respondent's age	(2;10)	(2;7)	(3;1)	(3;8)	(4;4)	(4;9)	(5;2)	(5;9)
Respondent's initial	AF	ZU	SI	SJ	MA	FJ	AM	AL
Respondent's age	(2;10)	(2;7)	(3;2)	(3;9)	(4;4)	(4;10)	(5;4)	(5;10)
Respondent's initial	GU	FB	AH	FN	FI	FA	FM	BL
Respondent's age	(3;0)	(2;8)	(3;2)	(3;10)	(4;5)	(4;11)	(5;4)	(5;11)
Respondent's initial	ZD	BI	ZA	AZ	AHS	RA	SS	HI
Respondent's age	(3;0)	(2;11)	(3;4)	(4;0)	(4;6)	(5;0)	(5;6)	(5;11)

9.3 Bio Data of the Respondents

9.4 Protocol

9.4.1 Protocol for Noun Acquisition

9.4.1.1 Protocol for Yes (Y)

Types & Examples
Type: Absolute marked noun in both languages
Examples:
laRk-A , munD-A
boy-M.S.Nomi
(boy).
Type: Unmarked nouns
Examples:
bhAi
brother-M.S.Nomi
(brother),
bEhn
sister-F.S.Nomi
(sister),
AApi
Elder sister-F.S.Nomi
(elder sister),
pAai
brother-M.S.Nomi
(brother)
pEn
sister-F.S.Nomi
(sister).
Type: Urdu-Punjabi noun overlapping in both languages but the whole phrase in
single language
Examples:
laRkA- laRkA or munDA- munDA

boy- M.S.Nomi

(boy).

Type: English nouns in gender & number taken as unmarked

Examples:

cock, hen, horse, cat.

9.4.1.2 Protocol for No (N)

	Тур	es & Examples
Type: The absolut	te wrong	
Example:		
hen for masculine	or plural etc.	
Type: Self vocabu	ılary	
Example:		
Like <i>kUkURukRu</i>	N for cock.	
Type: English nou	in in nominative p	lural case which does not indicate inflectional
acquisition		
Examples:		
horse, donkey ins	stead of <i>ghoRe</i> (ho	orses).
Type: Mixing in o	blique cases	
Example:		
horse	k-e	Upar
horse-M.S.Obli	Poss-Obli	on.Adv
(on horse)		
instead of		
ghoR-e	k-e	Upar
horse-M.S.Obli	Poss-Obli	on.Adv
(on horse).		

Type: Incomplete inflection in oblique and vocative plural case

Examples:

ghoR-e k-e Upar

horse-M.S.Obli	Poss-Obli	on.Adv
(on horse)		
instead of		
ghoR-oN	k-e	Upar
horse-M.Pl.Obli	Poss-Obli	on.Adv
(on horses),		
laRk-iaN		
girl-F.Pl.Nomi		
(girls)		
instead of		
laRk-io		
o girl-F.Pl.Voca		
(o girls).		

Type: The vocative case without noun

Examples:		
ithar	AA-o	
here	come-Imp.2.Pl	
(come here!),		
ithar	AA-nA	
here	come-Inf.Nomi	
(come here),		
AA	jA-o	
come	go-Imp.2.Pl	
(come here!)		
instead of		
laRk-e !	ithar	AA-o
o boy- M.S.Voc	a here.Adv	come-Imp.2.Pl
(O boy! come he	ere).	

9.4.1.3 Protocol for In Process Acquisition (IP)

Types & Examples
Type: Over generalization within language
Examples:
In Urdu
murG-ieN
hen-F.Pl.Nomi
(hens),
Tokar-ieN
basket-F.Pl.Nomi
(baskets),
laRk-ieN
girl-F.Pl.Nomi
(girls) instead of
murG-iaN
hen-F.Pl.Nomi
(hens),
Tokar-iaN
basket-F.Pl.Nomi
(baskets) and
laRk-iaN
girl-F.Pl.Nomi
(girls).
Type: Over generalization across language (in Punjabi from Urdu)
Examples:
laRk-eaN
boy-M.Pl.Obli
(boys)
instead of
munD-eaN
boy-M.Pl.Obli
(boys),

AAnD-eoN

egg-M.Pl.Obli

(eggs)

instead of

anD-oN

egg-M.Pl.Obli

(eggs),

ku**R-**ieN

girl-F.Pl.Nomi

(girls)

instead of

kuR-iaN

girl-F.Pl.Nomi

(girls).

Type: Number in plurals and case inflection

Examples:

do	horse	
two.Num	horse-M.S.Nomi	
(two horse),		
do	ghoR-A	
two.Num	horse-M.S.Nomi	
(two horse),		
do-noN	horse	
both-Int	horse-M.S.Nomi	
(both the horse),		
tiin	hen-eN	
three.Num	hen-F.Pl.Nomi	
(three hens),		
do-noN	horse	ko
both-Int	horse-M.S	Acc
(both the horse).		

Type: Mixing of languages

Examples:

ghoR-e	de
horse-M.S.Obli	Poss-Obli
(horse's),	
ghoR-eaN	nuN
horse-M.Pl.Obli	Acc
(to horses),	
koR-eaN	nuN
horse-M.Pl.Obli	Acc
(to horses),	
kuR-iaN	ke
girl-F.Pl.Obli	Poss-Obli
(to girls) in urdu co	ontext.
laRk-eaN	de
boy-M.Pl.Obli	Poss-Obli
(to boys)	
or	
laRk-oN	de
boy-M.Pl.Obli	Poss-Obli
(boys')	
or	
laRk-oN	ne
boy-M.Pl.Obli	Erg
(the boys) or	
laRk-iaN	kol
girl -F.Pl.Obli	in possession of. Loc
(to the girls) in Pu	njabi context.
Type: Incomplete	inflection in masculine and feminine plural case

Examples:

do-veN	pAai	kol
both-Int	brother-M.S.Obli	in possession of.Loc
(to both the broth	her)	
instead of		
dov-eN	pAa-iaN	kol

both-Int	brother-M.Pl.Obli	in possession of.Loc
(to both the brothers).		
laRk-iaN	k-e	
girl-F.Pl.Nomi	Poss-Obli	
(to the girls),		
instead of		
laRk-ioN	k-e	
girl-F.Pl.Obli	Poss-Obli	
(to the girls).		

9.4.2 Protocol for Verb Acquisition

9.4.2.1 Protocol for Yes (Y)

	Туре	s & Exa	amples			
Type: Absolute right	t use of form and	functio	n			
Examples:						
laRk-i	khAnA		pakA	r	ah-i	hE
girl-N.M.S.Nomi	food-N.M.S.No	omi	cook	Р	rog-F.S.	be.Pr.3.S
(The girl is cooking f	food).					
or						
kuRi	xarbuja	kh-	An	Dai	ļ	e
girl-N.M.S.Nomi	melon	eat-	Inf.Obli	Pro	g-F.S	be.Pr.3.S
(The girl is eating me	elon).					
Type: Mixing of lan	guages but correc	ct use of	f tense			
Examples:						
pAai	fon	kar	r	ah-A		е
brother-N.M.S.Nomi	phone	do	Pr	og-M	.S.	
be.Pr.3.S						
(The man is making	a call) in urdu an	d				
LaRk-e	kum	l	likh-an		Da-e	ne
Boy-N.M.Pl.Nomi	work	V	vrite- Inf.	Obli	Prog-M.P	1
be.Pr.3.S						
(The boys are doing	work) in Punjabi					

9.4.2.2 Protocol for No (N)

	Types	& Example	e	
Type: Absolute wro	ong use of form and	function		
Examples:				
ye -	jhul-A		e	
this-DP-1.S.Nomi	swing-N.M.S.	swing-N.M.S.Nomi		3.S
(This is a swing) in	stead of			
laRk-i	jhul-e	par	bETh-i	hE
girl-N.F.S.Nomi	swing-N.M.S.Obli	on.Loc	sit-Perf.F.S	be.Pr.3.S
(The girl is sitting o	on the swing)			
Similarly				
E	kAkA		e	
this-DP.1.S.Nomi	baby-N.M.S.I	Nomi	be.Pr.3	.S
(This is a baby) inst	tead of			
munD-A	beth-	A	e	
boy-N.M.S.Nomi	sit- I	sit- Perf.M.S		.Pr.3.S
(The boy is sitting).				
Type: Incorrect use	e of gender			
Example:				
Masculine is used in	nstead of feminine.			
Type: Use of singu	lar form instead of p	lural form		
Examples:				
bhAi	fon	kar	rah-A	hE
brother-N.M.S.Non	ni phone	do	Prog-M.	S
be.Pr.3.S				
(The man is making	g a call) instead of			
bhAi	fon	kar	rah-e	heN
brother-N.M.Pl.Nor	mi phone	do	Prog-M.	Pl
be.Pr.3.Pl				

9.4.2.3	Protocol for	In Process	Acquisition	(IP)
				· ·

	Т	ypes &	& Exan	nple			
Type: Punja	abi construction in Urc	lu cont	text				
Example:							
0	pak-An			Da-i		e	
she.3.S.Non	ni cook-Inf.C	bli		Prog-F.S	5	be.Pr.3.S	
instead of							
vo	pakA			rah-i		hE	
she.3.S.Non	ni cook	cook Prog-F.S				be.Pr.3.S	
(She is cooking) and							
(0)	cuT-e		lEn		Da-i	e	
(she)	swings-N.M.Pl.Nor	mi	tak	e.Inf.Obli	Prog- F.S	S	
be.Pr.3.S							
Instead of							
(vo)	jhule		le		rah-i	hE	
(she)	swings-N.M.Pl.Nomi		take		Prog-F.S	be.Pe.3.S	
(She is takin	ig swings)						
Similarly							
0	kam	kar		reh-i	i	e	
she	work.N.M.S.Nomi	do		Prog.	.F.S	be.Pr. 3.S	
instead of							
V0	kAm	kar		rahi		hE	
she	work.N.M.S.Nomi	do		Prog.	.F.S	be.Pr. 3.S	
(She is doin	g work).						

Type: Urdu constru	ction in Punjabi con	ntext	
Example:			
vo	jA	rah-A	hE
he.3.S.Nomi	go	Prog-M.S	be.Pr.3.S
(He is going)			
instead of			
0	jA	reh-A	e
he.3.S.Nomi	go	Prog-M.S	be.Pr.3.S
(He is going).			
Type: Incomplete c	onstructions		
Examples:			
roT-i			
bread-N.F.S.Nomi			
instead of			
roT-i	de	d- eN	
bread-N.F.S.Nomi	give	give- Imp	.2.Pl.
(Give me roti!).			
or			
kuR-i	khAn-di		
she.N.F.S.Nomi	eat-Imperf.F.S		
instead of			
kuRi	khAndi	е	
she.N.F.S.Nomi	eat-Imperf.F.S	be.Pr.3.S	
(The girl eats)			
Similarly			
utte	jAn-dA		
up.Adv	go-Imperf.M.S		
instead of			
0	utte	jAn-dA	si
he.3.S.Nomi	up.Adv	go-Imperf.M.S	be.Pst.3.S
(He goes up) and			
0	jAnd-i		

I++ A	kaTno	lag	op-A	
instead of				
(The dog started	biting)			
dog-N.M.S.Nom	i bite- Inf.	Obli attach	go- Perf	.M.S
kutt-A	vaDD-ne	lag	ge-A	
Examples:				
Type: Punjabi m	nixing in Urdu co	onstruction		
(She has worn th	is pony).			
put on- Perf.F.S	be.Pr.3.S			
pA-i	e			
she.3.S.Obli	Erg	this.DP.S.I	Nomi pony	.N.F.S.Nomi
us	ne	Ε	pony	y
instead of				
this.DP.S.Nomi	pony.N.F.S	S.Nomi put	on-Perf.F.S	be.Pr.3.S
Ε	pony	рA	i	e
in the same way				
(He is sleeping).				
he.3.S.Nomi	sleep	Prog.M.S	be.Pr.3.S	
0	SO	rihA	e	
instead of				
(sleeps)				
sleep	be.Pr.3	.S		
sut-tA	e			
Another example	e is			
(She goes)	8r			
she.3.S.Nomi	go-Imperf.	F.S	be.Pr.3.S	
	iAnd-i		e	
(She go)				
	go-imperi.	1'.0		

кин-А	китпе	ug	ge-A
dog-N.M.S.Nomi	bite- Inf.Obli	attach	go- Perf.M.S
(The dog started biti	ng)		

Or					
vo	chilk-e	lk-e			th-A
he.3.S.Nomi	husk-N.M.Pl.Nor	ni	throw- Imper	f.M.S	be.Pst.3.S
(He was throw	ving husks)				
instead of					
vo	chilke		phEnk-tA		th-A
he .3.S.Nomi	husk-N.M.Pl.No	mi	throw- Imp	perf.M.S	be.Pst.3.S
(He was throw	ving husks)				
Similarly					
sher	lame		pe-A	thA	
lion.N.M.S.No	omi lying		fall-Perf.M.S	be.Pst.3.S	
instead of					
sher	leTA		hu-A	thA	
lion	lying do	wn	be-Perf.M.S	be.Pst.3.S	
(The lion was	lying down)				
In the same wa	ay				
laRki	lame		pe-i	thi	
girl.N.M.S.No	mi lying		fall-Perf.F.S	be.Pst.3.S	
instead of					
laRki	leTi		hu-i	thi	
girl.N.M.S.No	mi lying		fall-Perf.F.S	be.Pst.3.S	
(the girl was ly	ying down / sleepi	ng)			
Another exam	ple is				
(vo)	hath	lA	ra-hA	th-A	
he.3.S.Nomi	hand	touch	Prog.M.S	be.Pst.3.S	
instead of					
(vo)	hAth	lagA	rahA	thA	
he.3.S.Nomi	hand	touch	Prog.M.S	be.Pst.3.S	
(He was touch	ing).				

Examples:				
0	gal	kar	rah-i	th-i
she.3.F.Nomi	talk	do	Prog-F.S	be.Pst.3.S
(She was talkin	g)			
instead of				
0	gal	kar	rehi	si
she.3.F.Nomi	talk	do	Prog-F.S	be.Pst.3.S
(She was talkin	g)			
And				
(bu-A)		khol-eA	th-A	
(doorN.M.S.No	omi)	open-Perf.M.S	be.Pst.3.S	
Instead of				
(bu-A)		khol-eA	si	
(door.N.M.S.No	omi)	open-Perf.M.S	be.Pst.3.S	
(The door was o	opened).			

9.4.3 Protocol for Adjective-Noun Agreement

Type: Urdu mixing in Punjabi construction

9.4.3.1 Protocol for Yes (Y)

	Types & Example
Type: Absolute correct response	ses
Examples:	
choT-A	anD-A
small-Adj.M.S.Nomi	egg-N.M.S.Nomi
(small egg) or	
vaDD-A	pagAan-A
big-Adj.M.S.Nomi	balloon-N.M.S.Nomi
(big balloon).	

Type: Urdu-Punjal	oi adjectives overla	apping ir	n both languages	
Examples:				
nikk-A	an	D-A		
small-Adj.M.S.Nor	ni egg	g-N.M.S	.Nomi	
(small egg) in urdu	and			
choT-A	Gu	bAr-A, p	pagAan-A, bagAr-A	L
small-Adj.M.S.Nor	ni bal	loon-N.I	M.S.Nomi	
(small balloon) in I	Punjabi.			
Type: Punjabi mix	ing in Urdu constr	uction		
Example:				
vaDD-e	anD-e	meN	DAl-e	hEN
big-Adj.M.S.Obli	egg-N.M.S.Obli	in.Loc	put / insert-Perf.M	I.Pl be.Pr.3.Pl
(put /inserted in big	g egg)		instead of	
baR-e	anD-e	meN	DAl-e	hEN
big-Adj.M.S.Obli	egg-N.M.S.Obli	in.Lo	oc put / insert- Perf	f.M.Pl be.Pr.3.Pl
(put /inserted in big	g egg).			
Type: English nou	n with Punjabi adj	ective in	nominative case	
Example:				
vaDD-A	balUn			
big-Adj.M.S.Nomi	balloon-N	N.M.S.N	omi	
(big balloon)				
instead of				
vaDD-A	pagAd	an-A		
big-Adj.M.S.Nomi	balloon	-N.M.S.	Nomi	
(big balloons).				
Type: Common us	e of plural oblique			
Example:				
vaDD-i	guDD-iaN		ne	
big-Adj.F.S.Obli	doll-N.F.Pl.Ob	li	Erg	
instead of				
vaDD-iaN	guDD-iaN		ne	
big-Adj.F.Pl.Obli	doll-N.F.Pl.Ol	oli	Erg	
(big dolls).				

	Types & Examples					
Type: Absolute	incorrect res	ponses				
Examples:						
is	k-e	andar				
it-DP.S.Obli	Poss-Obli	inside.Adv				
(in it)						
instead of						
choT-A	anD-	A	DAl-A	hE		
small-Adj.M.S.N	Nomi egg	-N.M.S.Nomi	put / insert-	Perf-M.Pl be.Pr.3.S		
(Small egg is ins	erted) or					
vic	pAi-A	L				
in.Loc	put/ n	sert-Perf.M.S				
(inserted it)						
instead of						
nikk-A	pag	Aan-A	vic	pAi-A		
small-Adj.M.S.Nomi balloon-N.M.S.Nom			omi in.Loc	put / insert-Perf.M.S		
(Small balloon is	s inserted).					
Type: Incomple	te inflection	in oblique plur	als			
Example:						
choT-i	То	kar-i	meN			
small-Adj.F.S.O	bli bas	ket-N.F.S.Obli	in.Loc			
(in small basket)	instead of					
choTi	Tok	ar-ioN	meN			
small-Adj.F.Pl.C	small-Adj.F.Pl.Obli basket-N.F.Pl.Obli					
(in small baskets	s) or					
vaDD-e	pagA	an-e	vic			
big-Adj.M.S.Ob	li ballo	on-N.M.S.Obli	in.Loc			
(in big balloon)						
instead of						
vaDD-eaN	pa	gAan-eaN	vic			

9.4.3.2 Protocol for No (N)

big-Adj.M.Pl.Obli	balloon-N.M.Pl.Obli	in.Loc
(in big balloons).		
Type: Use of noun only	v instead of adjective-noun	construction
Example:		
Tokar-i	meN	
basket-N.F.S.Obli	in.Loc	
(in basket) instead of		
choT-i	Tokar-i	meN
small-Adj.F.S.Obli	basket-N.F.S.Obli	in.Loc
(in small basket) or		
guDD-i	E	
doll-N.F.S.Nomi	be.Pr.3.S	
(This is a doll) instead of	of	
choT-i	guDD-i	
small-Adj.F.S.Nomi	doll-N.F.S.Nomi	
(small doll).		
Type: Post modifiers		
Example:		
PagAan-A	vaDD-A	
balloon-N.M.S.Nomi	big-Adj.M.S.N	lomi
(Balloon is big).		
Type: English noun in o	oblique case which does no	ot indicate inflectional acquisition
Example:		
vaDD-e	balUn	ic
big-Adj.M.S.Obli	balloon- N.M.S	in.Loc
instead of		
vaDD-e	pagAan-e	ic

big-Adj.M.S.Obli (in big balloon).

9.4.3.3 Protocol for In Process Acquisition (IP)

balloon- N.M.S.Obli

in.Loc

Type: Diminutives				
Example:				
anD-i				
egg-N.F.S.Nomi				
(egg) instead of				
choT-A	anD-A			
small-Adj.M.S.Nomi	egg-N.M.S.Nomi			
(small egg).				
Type: Use of adjectives	as noun or only nouns	5		
Example:				
baR-e	k-e	or	vaDD-e	
big-Adj.M.S.Obli	Poss-Obli		big-Adj.M.S.Obli	
(in big) instead of				
baR-e	anD-e		k-e	undar
big-Adj.M.S.Obli	egg.N.M.S.Obli		Poss-Obli	
inside.Adv				
(in big egg)				
or				
pagAan- e	k-e		andar	
balloon-N.M.S.Obli	Poss-Obli		inside. Adv	
(in balloon).				
Type: Numbers are used	as pre modifiers inste	ead of at	tributive adjectiv	es
Example:				
do-veN	anD-e			
both-Int	egg-N.M.Pl.Nomi			
(in both eggs) instead of				
choT-e	anD-e			
small-Adj.M.Pl.Nomi	egg-N.M.Pl.No	omi		
(small eggs)				
or				
do-veN	pagAan-e			
both-Int	balloon-N.M.F	l.Obli		
(in both balloons) instead	l of			
vaDD-e	pagAan-eaN	vic		
----------------------------	---	-------------		
big-Adj.M.Pl.Obli	balloon-N.M.Pl.Obli	in.Loc		
(in big balloons).				
Type: Overgeneralization	of noun inflection in same language			
Example:				
choT-i	Tokar-ieN			
small-Adj.F.Pl.Nomi	basket-N.F.Pl.Nomi			
(small baskets) instead of				
choT-i	Tokar-iaN			
small-Adj.F.Pl.Nomi	basket-N.F.Pl.Nomi			
(small baskets).				
Type: Overgeneralization	of both adjective-noun inflection in sa	me language		
Example:				
choT-ieN	Tokar-ieN			
small-Adj.F.Pl.Nomi	basket-N.F.Pl.Nomi			
(small baskets) instead of				
choT-i	Tokar-iaN			
small-Adj.F.Pl.Nomi	baskets-N.F.Pl.Nomi			
(small baskets).				
Type: Overgeneralization	of noun inflection of other language			
Example:				
choT-iaN	guDD-ieN			
small-Adj.F.Pl.Nomi	doll-N.F.Pl.Nomi			
(small dolls)				
or				
choT-ieN	guDD-ieN			
small-Adj.F.Pl.Nomi	doll-N.F.Pl.Nomi			
(small dolls) instead of				
choT-iaN	guDD-iaN			
small-Adj.F.Pl.Nomi	doll-N.F.Pl.Nomi			
(small dolls).				

Type: Punjabi construction in U	rdu context	
Example:		
nikk-iaN	Tokar-iaN	de
small-Adj.F.Pl.Obli	basket-N.F.Pl.Obli	Poss-Obli
(in small baskets) instead of		
choT-i	Tokar-ioN	meN
small-Adj.F.Pl.Obli	basket-N.F.Pl.Obli	in.Loc
(in small baskets).		
Type: Urdu construction in Punj	jabi context	
Example:		
baR-i	guDD-i	me N
big-Adj.F.S.Obli	doll-N.F.S.Obli	in.Loc
(in big doll)		
instead of		
vaDD-i	guDD-i	ich
big-Adj.F.S.Obli	doll-N.F.S.Obli	in.Loc
(in big doll).		
Type: Interference of Punjabi in	flection in Urdu	
Example:		
choT-iaN	Tokar-ioN	meN
small-Adj.F.Pl.Obli	basket-N.F.Pl.Obli	in.Loc
(in small baskets) instead of		
choT-i	Tokar-ioN	meN
small-Adj.F.Pl.Obli	basket-N.F.Pl.Obli	in.Loc
(in small baskets).		
Type: Overgeneralized double in	nflection	
Example:		
choT-ioN	Tokar-ioN	meN
small-Adj.F.Pl.Obli	basket-N.F.Pl.Obli	in.Loc
(in small basket) instead of		
choT-i	Tokar-ioN	meN
small-Adj.F.Pl.Obli	basket-N.F.Pl.Obli	in.Loc
(in small baskets).		

Type: Innovative forms		
Example:		
baR-e	anD-eoN	meN
big.Adj.M.Pl.Obli	egg.N.M.Pl.Obli	in.Loc
(big eggs) instead of		
baR-e	anD-oN	meN
big-Adj.M.Pl.Obli	egg-N.M.Pl.Obli	in.Loc
(in big eggs).		

9.5 Data Collection Input in Table Form

9.5.1 Bilingual Groups Data Input

9.5.1.1 Noun Urdu

										NO	UN UI	RDU									
Respondent	Gender	Age	Age	Ger	nder		М		F.	Ca	ase Mas	culine	Case	e Masci	uline	Cas	se Femi	nine	Cas	se Femi	nine
		Group	(DoB)	24	-		imber	r N	lumb	er	Singu	ar		Plural			Singula	r		Plural	**
				М	F	S	PI	S	PI	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca
SD	F	3.0-3.5	3;1	Y	Ν	Y	Ν	Ν	Ν	Y	IP	Y	Y	Ν	Ν	Y	IP	Y	Y	Ν	Ν
SL	М	3.0-3.5	3;1	Ν	Y	Y	Ν	Y	Ν	Y	Y	Y	Ν	Ν	Ν	Y	IP	Y	Ν	Ν	Ν
AS	М	3.0-3.5	3;1	Y	Y	Y	Y	Ν	Ν	Y	IP	Ν	Y	Ν	NR	Y	Y	Y	Y	Ν	Ν
AH	М	3.0-3.5	3;2	Ν	Ν	Y	Y	Ν	Ν	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	Ν	Ν
SI	F	3.0-3.5	3;2	IP	Ν	Y	Ν	Ν	IP	Y	Ν	Y	Ν	Ν	Ν	Y	Ν	NR	Ν	Ν	Ν
ZA	F	3.0-3.5	3;4	Y	Ν	Y	Y	Ν	Ν	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Y	IP	Ν
ME	М	3.5-4.0	3;7	Y	Ν	Y	IP	Ν	Ν	Y	Y	Ν	Y	Ν	Ν	Y	Y	Y	Y	Ν	Ν
UJ	М	3.5-4.0	3;7	Ν	Y	Y	Y	Ν	Ν	Y	Y	У	Y	Ν	Ν	Y	Y	Y	Y	IP	Ν
FQ	F	3.5-4.0	3;8	Ν	Y	Y	Y	Y	Ν	Y	Y	Ν	Y	Ν	Ν	Y	Y	Y	Y	IP	Ν
SJ	Μ	3.5-4.0	3;9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	IP	Ν
FN	F	3.5-4.0	3;10	Y	Ν	Y	Y	Ν	Ν	Y	Y	Y	Y	IP	Ν	Y	Y	Y	Y	IP	Ν
AZ	F	3.5-4.0	4;0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	IP	Ν
SW	F	4.0-4.5	4;3	Y	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Ν
MN	F	4.0-4.5	4;3	Y	Y	Y	IP	Y	Ν	Ν	Y	Ν	Ν	Ν	Ν	Y	Y	Y	Y	IP	Ν
MA	М	4.0-4.5	4;4	Ν	Y	Y	Y	Y	Y	Y	Y	Y	Y	IP	Y	Y	Y	Y	Y	IP	Ν
IF	F	4.0-4.5	4;4	Ν	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	IP	Ν
FI	М	4.0-4.5	4;5	Ν	Y	Y	Y	Y	Y	Y	Y	Y	Y	IP	Ν	Y	Y	Y	Y	IP	NR
AHS	М	4.0-4.5	4;6	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	IP	Ν	Y	IP	Y	Y	IP	Ν

UA	М	4.5-5.0	4;7	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	IP	IP
MF	F	4.5-5.0	4;8	Ν	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	IP	IP	Ν
FF	F	4.5-5.0	4;9	Ν	Y	Y	Y	Y	IP	Y	Y	Ν	Y	Y	Ν	Y	Y	Y	IP	Y	Ν
FJ	Μ	4.5-5.0	4;10	Y	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	IP	IP	Ν
FA	Μ	4.5-5.0	4;11	Ν	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	IP	Ν
RA	F	4.5-5.0	5;0	Y	Y	Y	Y	Y	IP	Y	Y	Ν	Y	Ν	Ν	Y	Y	Y	IP	Y	Ν
MH	F	5.0-5.5	5;1	Y	Y	Y	IP	Y	Ν	Y	Ν	Ν	Ν	Ν	Ν	Y	Y	Ν	IP	Y	Ν
ТА	F	5.0-5.5	5;2	Y	Ν	Y	IP	Ν	Ν	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	IP	Y	Ν
AA	Μ	5.0-5.5	5;2	Ν	Ν	Y	IP	Y	IP	Ν	Y	Ν	Y	Ν	Ν	Y	Y	Ν	Y	IP	Ν
FM	Μ	5.0-5.5	5;4	Y	Y	Y	Y	Y	Ν	Y	Y	Ν	Y	Y	Ν	Y	NR	NR	Y	Y	Ν
AM	F	5.0-5.5	5;4	Y	Y	Y	IP	Y	IP	Y	Y	Ν	Ν	Y	Ν	Y	Y	Ν	Ν	Y	Ν
SS	Μ	5.0-5.5	5;6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	IP	IP	Ν
AJ	F	5.5-6.0	5;7	Y	Y	Y	IP	Y	Y	Y	Ν	Y	Ν	IP	N	Y	Y	Y	Y	Y	Ν
SN	F	5.5-6.0	5;7	Y	Y	Y	Y	Y	IP	Y	Y	Y	Ν	IP	Ν	Y	Y	Y	IP	Y	Ν
JA	F	5.5-6.0	5;9	Y	Y	Y	Y	Y	IP	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	Y	Ν
AL	Μ	5.5-6.0	5;10	Y	Y	Y	IP	Y	IP	Y	Y	Y	IP	Y	Ν	Y	Y	NR	IP	Y	Ν
BL	Μ	5.5-6.0	5;11	Y	Y	Y	IP	Y	Ν	Y	Y	Ν	IP	Ν	Ν	Y	Ν	Ν	IP	Y	Ν
HI	М	5.5-6.0	5;11	Y	Y	Y	Y	Y	IP	Y	Y	Y	Ν	Y	NR	Y	Y	Y	IP	Y	NR

									NC	DUN P	UNJA	BI									
Respondent	Gender	Age	Age	Ger	nder	l	M	NT	F	Cas	e Masci	ıline	Case	Masc	uline	Cas	e Femir	nine	Cas	se Femi	nine
		Group	(Dob)	М	F	S	nber Pl	S	nber Pl	Nomi	Obli	r Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca
SD	F	3.0-3.5	3;1	Y	Y	Y	Y	Y	N	Y	N	N	N	N	N	Y	Y	Y	N	N	N
AS	М	3.0-3.5	3;1	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Y	Ν	NR	Y	Y	Y	Y	Ν	NR
SL	М	3.0-3.5	3;1	Y	Y	Y	Y	Y	Ν	Y	Ν	NR	Y	Ν	NR	Y	У	Y	Ν	Ν	Ν
SI	F	3.0-3.5	3;2	Ν	Y	Y	Ν	Y	Ν	Y	Ν	Y	Y	Ν	Ν	Y	Ν	Y	Ν	Ν	Ν
AH	М	3.0-3.5	3;2	Ν	Y	Y	Ν	Y	Y	Y	Ν	Y	Y	Ν	Ν	Y	IP	Y	Ν	Ν	Ν
ZA	F	3.0-3.5	3;4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	IP	Ν	Y	Y	Y	Y	Y	Ν
ME	М	3.5-4.0	3;7	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Y	Ν	Y	Y	Y	Y	Y	N
UJ	М	3.5-4.0	3;7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Ν
FQ	F	3.5-4.0	3;8	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Ν	Ν	Y	Y	Y	Y	Ν	Ν
SJ	Μ	3.5-4.0	3;9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	Y	Ν
FN	F	3.5-4.0	3;10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NR	Y	Y	Y	Y	Y	Ν
AZ	F	3.5-4.0	4;0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Ν
SW	F	4.0-4.5	4;3	Y	Y	Y	Y	Y	IP	Y	Y	Ν	Y	IP	Ν	Y	Y	Y	Y	IP	Ν
MN	F	4.0-4.5	4;3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	Y	Ν
MA	Μ	4.0-4.5	4;4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Ν
IF	F	4.0-4.5	4;4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Ν
FI	М	4.0-4.5	4;5	Y	Y	Y	Ν	Y	Y	Y	Y	Ν	Y	Y	Ν	Y	Y	Y	Y	Y	Ν
AHS	М	4.0-4.5	4;6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	Y	Ν
UA	М	4.5-5.0	4;7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	NR	Y	Y	Y	Y	Y	Y
MF	F	4.5-5.0	4;8	Y	Y	Y	Y	Y	IP	Y	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Ν

9.5.1.2 Noun Punjabi

FF	F	4.5-5.0	4;9	Y	Y	Y	Y	Y	Y	Y	IP	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Ν
FJ	Μ	4.5-5.0	4;10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Ν
FA	Μ	4.5-5.0	4;11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	Y	Ν
RA	F	4.5-5.0	5;0	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Y	Ν	Y	Y	Y	Y	Y	Ν
MH	F	5.0-5.5	5;1	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Y	Ν	Y	Y	Ν	Y	Y	N
ТА	F	5.0-5.5	5;2	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	IP	Ν	Y	Y	Y	Y	IP	Ν
AA	Μ	5.0-5.5	5;2	Y	Y	Y	Y	Y	IP	Ν	Ν	Ν	Y	Y	Ν	Y	Y	Ν	Y	Y	Ν
FM	Μ	5.0-5.5	5;4	Y	Y	Y	Y	Y	Y	Y	IP	Y	Y	Ν	Ν	Y	Y	NR	Y	IP	NR
AM	F	5.0-5.5	5;4	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Y	Ν	Y	Y	Y	Y	Y	Ν
SS	М	5.0-5.5	5;6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	Y	Ν
SN	F	5.5-6.0	5;7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Ν
AJ	F	5.5-6.0	5;7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Ν	Y	Y	Y	Y	Y	Ν
JA	F	5.5-6.0	5;9	Y	Y	Y	Y	Y	IP	Y	Y	Ν	Y	Y	Ν	Y	Y	NR	Y	Y	Ν
AL	Μ	5.5-6.0	5;10	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Y	IP	Ν	Y	Y	Ν	Y	Y	Ν
HI	М	5.5-6.0	5;11	Y	Y	Y	Y	Y	Y	Y	Y	NR	Y	Y	NR	Y	Y	Y	Y	Y	NR
BL	М	5.5-6.0	5;11	Y	Y	Y	Y	Y	IP	Y	Y	Ν	Y	IP	Ν	Y	Y	Ν	Y	Y	Ν

9.5.1.3	/erb	Urdu
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								۲	VERB UI	RDU						
Respondent	Gender	Age	DoB					Present				Past		Infini	tive	Imperative
		Group				Progr	essive		Habitual	Perfect	Progressiv	Habitual	Perfect	Nominativ	Oblique	Request Form
				Ger	nder	Nu	mber	Perso	-		e			e		
				М	F	S	Pl	3	-							
SD	F	3.0-3.5	3;1	Y	Y	Y	Y	Y	Y	Y	NR	NR	Y	NR	NR	Ν
AS	М	3.0-3.5	3;1	IP	IP	IP	IP	IP	IP	Y	NR	NR	Y	NR	NR	Y
SL	М	3.0-3.5	3;1	Y	Y	Y	Ν	Y	IP	Y	Y	NR	NR	Y	Y	Y
AH	М	3.0-3.5	3;2	Y	Y	Y	Y	Y	Y	Y	Y	NR	Y	NR	NR	Y
SI	F	3.0-3.5	3;2	IP	Y	IP	IP	IP	IP	Y	NR	NR	NR	Y	NR	Y
ZA	F	3.0-3.5	3;4	Y	Y	Y	Y	Y	Y	Y	NR	NR	IP	NR	NR	Y
ME	М	3.5-4.0	3;7	Y	Y	Y	IP	IP	NR	Y	NR	NR	IP	Y	NR	Y
UJ	М	3.5-4.0	3;7	Y	Y	Y	Y	Y	Y	NR	Y	NR	Y	Y	NR	Y
FQ	F	3.5-4.0	3;8	Y	Y	Y	Y	Y	NR	Y	Y	NR	Y	Y	NR	Y
SJ	М	3.5-4.0	3;9	Y	Y	Y	Y	Y	Y	Y	NR	NR	NR	Y	NR	Y
FN	F	3.5-4.0	3;10	IP	Y	IP	IP	Y	Y	IP	Y	NR	NR	NR	NR	Y
AZ	F	3.5-4.0	4;0	Y	Y	Y	Y	Y	Y	Y	NR	NR	Y	Y	NR	Y
SW	F	4.0-4.5	4;3	Y	Y	Y	Y	Y	Y	Y	Y	NR	Y	NR	IP	Y
MN	F	4.0-4.5	4;3	Y	Y	Y	Y	Y	Y	Y	NR	NR	Y	Y	NR	Y
MA	М	4.0-4.5	4;4	Y	Y	Y	Y	Y	Y	Y	Y	NR	Y	NR	NR	Y
IF	F	4.0-4.5	4;4	Y	Y	Y	Y	Y	NR	Y	Y	NR	Y	Y	NR	Y
FI	М	4.0-4.5	4;5	Y	Y	Y	Y	Y	NR	Y	NR	NR	Y	NR	NR	Y
AHS	М	4.0-4.5	4;6	IP	Y	IP	IP	Y	Y	IP	NR	NR	NR	NR	NR	Y

UA	М	4.5-5.0	4;7	Y	Y	Y	Y	Y	Y	Y	IP	NR	NR	Y	Y	IP
MF	F	4.5-5.0	4;8	Y	Y	Y	Y	Y	NR	Y	Y	NR	Y	Y	NR	Y
FF	F	4.5-5.0	4;9	Y	Y	Y	Y	Y	NR	Y	Y	IP	Y	Y	NR	Y
FJ	М	4.5-5.0	4;10	Y	Y	Y	Y	Y	Y	Y	NR	NR	Y	Y	Y	Y
FA	М	4.5-5.0	4;11	Y	IP	Y	Y	IP	NR	Y	NR	NR	Y	Y	NR	Y
RA	F	4.5-5.0	5;0	Y	Y	Y	Y	Y	Y	Y	Y	NR	Y	Y	NR	Y
MH	F	5.0-5.5	5;1	Y	Y	Y	Y	Y	Y	Y	NR	Y	Y	NR	Y	Y
ТА	F	5.0-5.5	5;2	Y	Y	Y	Y	Y	Y	Y	NR	Y	Y	Y	NR	Y
AA	М	5.0-5.5	5;2	Y	Y	Y	Y	Y	NR	Y	Y	NR	NR	Y	NR	Y
FM	М	5.0-5.5	5;4	Y	Y	Y	Y	Y	Y	Y	NR	Y	Y	Y	NR	Ν
AM	F	5.0-5.5	5;4	Y	Y	Y	Y	Y	Y	Y	NR	NR	Y	Y	Y	Y
SS	М	5.0-5.5	5;6	Y	Y	Y	Y	Y	Y	Y	NR	IP	Y	Y	NR	Y
AJ	F	5.5-6.0	5;7	Y	Y	Y	Y	Y	Y	Y	NR	NR	Y	Y	IP	Y
SN	F	5.5-6.0	5;7	Y	Y	Y	Y	Y	Y	Y	Y	NR	Y	Y	NR	Y
JA	F	5.5-6.0	5;9	Y	Y	Y	Y	Y	Y	IP	NR	NR	NR	Y	NR	Y
AL	М	5.5-6.0	5;10	Y	Y	Y	Y	Y	Y	Y	Y	NR	NR	Y	Y	Y
BL	М	5.5-6.0	5;11	Y	Y	Y	IP	Y	Y	Y	NR	NR	NR	Y	Y	Y
HI	М	5.5-6.0	5;11	Y	Y	Y	Y	Y	Y	Y	NR	NR	NR	Y	NR	Y

								VE	ERB PUN	JABI						
Respondent	Gender	Age Group	DoB					Present				Past		Infinit	ive	Imperative
						Progre	essive		Habitual	Perfect	Progressiv	Habitual	Perfect	Nominative	Oblique	Request Form
				Ger	nder	Nur	nber	Person			e					
				Μ	F	S	Pl	3								
SD	F	3.0-3.5	3;1	Y	Y	Y	Ν	Y	Y	Y	NR	NR	NR	Y	NR	Y
AS	М	3.0-3.5	3;1	Y	Y	Y	Y	Y	Y	Y	Y	IP	Y	Y	Y	Y
SL	М	3.0-3.5	3;1	Y	IP	NR	Ν	Y	Y	Y	NR	NR	NR	NR	Y	Y
SI	F	3.0-3.5	3;2	Y	Y	Y	Ν	Y	Y	Y	NR	Y	Y	Y	NR	Y
AH	М	3.0-3.5	3;2	IP	IP	IP	Ν	IP	Y	Y	Y	NR	Y	NR	Y	Y
ZA	F	3.0-3.5	3;4	Y	Y	Y	Y	Y	Y	Y	NR	NR	NR	NR	NR	IP
UJ	М	3.5-4.0	3;7	Y	Y	Y	Y	Y	Y	Y	Y	NR	Y	Y	NR	Y
ME	М	3.5-4.0	3;7	Y	Y	Y	Y	Y	NR	Y	Y	Y	Y	Y	Y	Y
FQ	F	3.5-4.0	3;8	Y	Y	Y	Y	Y	Y	Y	NR	Y	Y	Y	Y	Y
SJ	М	3.5-4.0	3;9	Y	Y	Y	Y	Y	Y	Y	NR	NR	NR	Y	NR	Y
FN	F	3.5-4.0	3;10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	NR	Y	Y
AZ	F	3.5-4.0	4;0	Y	Y	Y	Y	Y	Y	Y	NR	Y	Y	Y	NR	Y
SW	F	4.0-4.5	4;3	Y	Y	Y	IP	Y	Y	IP	Y	NR	NR	Y	NR	Y
MN	F	4.0-4.5	4;3	IP	IP	IP	IP	IP	Y	Y	NR	NR	Y	NR	NR	Y
MA	М	4.0-4.5	4;4	Y	Y	Y	Y	Y	NR	Y	NR	NR	Y	NR	NR	Y
IF	F	4.0-4.5	4;4	Y	Y	Y	Y	Y	NR	Y	Y	NR	Y	Y	NR	Y
FI	М	4.0-4.5	4;5	Y	Y	Y	Y	Y	Y	Y	NR	NR	Y	NR	NR	Y
AHS	М	4.0-4.5	4;6	Y	Y	Y	Y	Y	Y	NR	NR	NR	Y	NR	NR	Y

9.5.1.4 Verb Punjabi

UA	М	4.5-5.0	4;7	Y	Y	Y	Y	Y	NR	Y	NR	NR	NR	Y	Y	Y
MF	F	4.5-5.0	4;8	Y	Y	Y	Y	Y	NR	Y	IP	NR	IP	Y	NR	Y
FF	F	4.5-5.0	4;9	Y	Y	IP	Y	IP	NR	Y	Y	NR	Y	NR	Y	Y
FJ	М	4.5-5.0	4;10	Y	Y	Y	Y	Y	Y	Y	NR	NR	Y	IP	Y	Y
FA	М	4.5-5.0	4;11	Y	Y	Y	Y	Y	NR	Y	NR	NR	Y	Y	NR	Y
RA	F	4.5-5.0	5;0	Y	Y	Y	Y	Y	Y	Y	NR	NR	NR	Y	Y	Y
MH	F	5.0-5.5	5;1	Y	Y	Y	Y	Y	NR	Y	NR	NR	Y	Y	Y	Y
TA	F	5.0-5.5	5;2	Y	Y	Y	Y	Y	Y	Y	NR	Y	NR	Y	Y	Y
AA	М	5.0-5.5	5;2	Y	Y	Y	Y	Y	NR	NR	NR	NR	NR	Y	Y	Y
FM	М	5.0-5.5	5;4	Y	Y	Y	Y	Y	NR	Y	NR	NR	Y	Y	NR	Ν
AM	F	5.0-5.5	5;4	Y	Y	Y	Y	Y	NR	Y	NR	NR	Y	Y	Y	Y
SS	М	5.0-5.5	5;6	Y	Y	Y	Y	Y	IP	Y	NR	IP	Y	NR	NR	Y
AJ	F	5.5-6.0	5;7	Y	Y	Y	Y	Y	Y	Y	NR	NR	NR	Y	Y	Y
SN	F	5.5-6.0	5;7	Y	Y	Y	Y	Y	NR	Y	NR	Y	Y	Y	NR	Y
JA	F	5.5-6.0	5;9	Y	Y	Y	Y	Y	Y	Y	NR	NR	NR	Y	NR	Y
AL	М	5.5-6.0	5;10	Y	Y	Y	Y	Y	Y	Y	NR	Y	Y	Y	Y	Y
HI	М	5.5-6.0	5;11	Y	Y	Y	Y	Y	Y	Y	NR	NR	NR	Y	NR	Y
BL	М	5.5-6.0	5;11	Y	Y	Y	Y	Y	Y	Y	NR	NR	Y	Y	Y	Y

AGREEMENT URDU													
Respondent	Gender	Age Group	DOB			Subject-Verb Agreement	Object-Verb Agreement						
				Case Mascu	line Singular	Case Masc	culine Plural	Case Feminine	e Singular	Case Femir	nine Plural		
				Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli		
SD	F	3.0-3.5	3;1	IP	Ν	IP	Ν	IP	Ν	IP	Ν	Y	Y
AS	М	3.0-3.5	3;1	Y	Ν	IP	Ν	IP	Ν	IP	IP	Y	IP
SA	М	3.0-3.5	3;1	IP	Ν	Ν	Ν	IP	Ν	IP	Ν	Y	Y
SI	F	3.0-3.5	3;2	Ν	Ν	IP	Ν	Y	Ν	Y	Ν	Y	IP
AH	М	3.0-3.5	3;2	Y	IP	IP	Ν	Y	Y	IP	Ν	Y	Y
ZA	F	3.0-3.5	3;4	Y	IP	Y	Ν	Y	Y	IP	IP	Y	IP
UJ	М	3.5-4.0	3;7	Y	IP	Y	Ν	Y	Y	IP	IP	Y	Y
ME	М	3.5-4.0	3;7	Y	IP	Y	Ν	Y	Y	IP	IP	Y	Y
FQ	F	3.5-4.0	3;8	Y	Y	Y	Ν	Y	Y	IP	Y	Y	Y
SA	М	3.5-4.0	3;9	Y	IP	Y	IP	Y	Y	IP	Ν	Y	Y
FN	F	3.5-4.0	3;10	Y	IP	IP	Ν	Y	Y	IP	IP	Y	Y
AZ	F	3.5-4.0	4;0	Y	Y	Ν	Ν	Y	IP	IP	IP	Y	Y
SW	F	4.0-4.5	4;3	Y	Y	Y	Y	Y	Y	IP	Y	Y	Y
MN	F	4.0-4.5	4;3	Y	Y	Y	Ν	Y	Y	IP	Ν	Y	Y
MA	Μ	4.0-4.5	4;4	Y	Y	Y	Ν	Y	Y	IP	IP	Y	Y
IF	F	4.0-4.5	4;4	Y	Y	Y	Ν	Y	Y	IP	IP	Y	Y
FI	М	4.0-4.5	4;5	Y	Y	Y	Ν	Y	Y	IP	Ν	Y	Y
AHS	Μ	4.0-4.5	4;6	Y	Ν	Y	Ν	Y	Ν	IP	Ν	Y	Y

UA	М	4.5-5.0	4;7	Y	Y	Y	IP	Y	Y	IP	IP	Y	Y
MF	F	4.5-5.0	4;8	Y	Y	Y	Ν	Y	Y	IP	IP	Y	Y
FF	F	4.5-5.0	4;9	Y	Y	Y	Ν	Y	Y	IP	Ν	Y	Y
FJ	Μ	4.5-5.0	4;10	Y	Y	Y	Ν	Y	Y	IP	IP	Y	Y
FA	Μ	4.5-5.0	4;11	Y	Y	Y	Ν	Y	IP	IP	Ν	Y	Y
RA	F	4.5-5.0	5;0	Y	Y	Y	Ν	Y	Y	IP	Y	Y	Y
MH	F	5.0-5.5	5;1	Y	Y	Y	Ν	Y	Y	IP	Ν	Y	Y
TA	F	5.0-5.5	5;2	Y	Y	Y	Y	Y	Y	IP	IP	Y	Y
AA	Μ	5.0-5.5	5;2	Y	IP	Y	Ν	Y	Y	Y	IP	Y	Y
AM	F	5.0-5.5	5;4	Y	Y	Y	Y	Y	Y	IP	IP	Y	Y
FM	Μ	5.0-5.5	5;4	Y	IP	Y	Ν	Y	Y	IP	Ν	Y	Y
SS	Μ	5.0-5.5	5;6	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Y
AJ	F	5.5-6.0	5;7	Y	Y	Y	Y	Y	Y	IP	Y	Y	Y
SN	F	5.5-6.0	5;7	Ν	Y	Y	IP	Y	Y	Y	Y	Y	Y
JA	F	5.5-6.0	5;9	Y	Y	Y	Ν	Y	Y	IP	IP	Y	Y
AL	М	5.5-6.0	5;10	Y	Y	Y	Y	Y	Y	IP	Y	Y	Y
BL	Μ	5.5-6.0	5;11	Y	Y	Y	Y	Y	Y	IP	IP	Y	Y
HI	М	5.5-6.0	5;11	Y	Y	Y	Y	Y	Y	IP	Y	Y	Y

9.5.1.6 A	lgreement l	Punjabi
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	AGREEMENT PUNJABI														
Respondent	Gender	Age Group	DoB				Adje No Agre	ctive- oun ement				Subject- Verb Agreement	Object- Verb Agreement		
				Case M Sing	asculine rular	Case M Plu	asculine ural	Case Fer Sing	minine 11ar	Case Fe Plu	eminine ıral				
				Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli				
SD	F	3.0-3.5	3;1	IP	IP	IP	Ν	IP	Ν	Ν	N	Y	Y		
AS	М	3.0-3.5	3;1	Y	Y	Y	Ν	Y	Y	Y	Ν	Y	Y		
SL	М	3.0-3.5	3;1	Y	Ν	IP	Ν	IP	Ν	IP	Ν	Y	IP		
SI	F	3.0-3.5	3;2	IP	Ν	IP	Ν	Ν	IP	Ν	Ν	Y	Y		
AH	М	3.0-3.5	3;2	Y	IP	Y	Ν	IP	Y	Y	Ν	Y	Y		
ZA	F	3.0-3.5	3;4	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Y		
UJ	М	3.5-4.0	3;7	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Y		
ME	Μ	3.5-4.0	3;7	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Y		
FQ	F	3.5-4.0	3;8	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Y		
SJ	Μ	3.5-4.0	3;9	Ν	IP	Y	Y	Y	Y	Y	Y	Y	Y		
FN	F	3.5-4.0	3;10	Y	NR	Y	Ν	Y	Y	Y	IP	Y	Y		
AZ	F	3.5-4.0	4;0	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Y		
SW	F	4.0-4.5	4;3	Y	Y	Y	Y	Y	Y	IP	Ν	Y	Y		
MN	F	4.0-4.5	4;3	Y	Y	Y	Ν	Y	IP	Y	Y	Y	Y		
MA	Μ	4.0-4.5	4;4	Y	IP	Y	Y	Y	Y	IP	Y	Y	Y		
IF	F	4.0-4.5	4;4	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Y		
FI	М	4.0-4.5	4;5	Y	Y	Y	Ν	Y	IP	Y	Y	Y	Y		
AHS	М	4.0-4.5	4;6	Y	Y	Y	Ν	Y	Ν	Y	IP	Y	Y		

UA	М	4.5-5.0	4;7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MF	F	4.5-5.0	4;8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
FF	F	4.5-5.0	4;9	Y	Y	Y	Ν	Y	Y	IP	Ν	Y	Y
FJ	Μ	4.5-5.0	4;10	Y	Y	Y	Y	Y	Y	Y	IP	Y	Y
FA	М	4.5-5.0	4;11	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Y
RA	F	4.5-5.0	5;0	Y	Y	Y	Y	Y	Y	IP	Y	Y	Y
MH	F	5.0-5.5	5;1	Y	Y	Y	Ν	Y	Y	Y	Ν	Y	Y
ТА	F	5.0-5.5	5;2	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Y
AA	М	5.0-5.5	5;2	Y	IP	Y	Ν	Y	Y	Y	Y	Y	Y
FM	М	5.0-5.5	5;4	Y	IP	Y	Ν	Y	IP	IP	Ν	Y	Y
AM	F	5.0-5.5	5;4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SS	Μ	5.0-5.5	5;6	Y	Y	Y	Ν	Y	Y	IP	Y	Y	Y
SN	F	5.5-6.0	5;7	Y	Y	Y	Ν	Y	Y	Y	Y	Y	Y
AJ	F	5.5-6.0	5;7	Y	Ν	Ν	NR	Y	Y	Y	NR	Y	Y
JA	F	5.5-6.0	5;9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
AL	М	5.5-6.0	5;10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
BL	Μ	5.5-6.0	5;11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
HI	М	5.5-6.0	5;11	Y	Y	Y	Y	Y	Y	Y	NR	Y	Y

9.5.2 Monolingual Group Data Input in Table Form

9.5.2.1 Noun Urdu

	NOUN URDU																				
Respondent	Gender	Age	DoB	Ger	Gender M Number M				F	Case	e Mascu	iline r	Case	Mascu Plural	uline	Cas	e Femil	nine	Cas	e Femir	nine
		Oroup		М	F	S	Pl	S	Pl	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca
AR	М	2.5-3.0	2;7	N	Y	Y	Ν	Y	Ν	Y	Ν	NR	N	Ν	NR	Y	Ν	Y	N	NR	N
DA	Μ	2.5-3.0	2;9	Ν	Y	Y	IP	Y	IP	Y	Ν	Y	Ν	Ν	Ν	Y	Ν	Y	Ν	NR	Ν
AF	F	2.5-3.0	2;10	Ν	Y	Y	IP	Y	IP	Y	Y	Ν	Ν	Ν	Ν	NR	NR	Y	Y	Ν	NR
SA	F	2.5-3.0	2;10	NR	NR	Y	IP	Y	Ν	Y	Ν	Ν	Ν	Ν	Ν	Y	Y	Y	Ν	Ν	Ν
ZD	F	2.5-3.0	3;0	IP	Ν	Y	Ν	Ν	Ν	Y	Y	Y	Ν	Ν	Ν	Y	Ν	Y	Ν	Ν	Ν
GU	Μ	2.5-3.0	3;0	IP	Y	Y	Ν	Y	IP	Y	Ν	Y	Ν	Ν	Ν	Y	Ν	Y	Y	Ν	NR

	NOUN PUNJABI																				
Respondent	Gender	Age	DoB	Ge	nder	1	M]	F	Case	e Mascu	ıline	Case	Mascu	uline	Cas	e Femiı	nine	Cas	e Femiı	nine
	Group			Number Number			nber	Singular			_	Plural		S	Singula	r		Plural			
				М	F	S	Pl	S	Pl	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca
HN	М	2.5-3.0	2;6	Y	Y	Y	IP	Y	Ν	Y	Ν	NR	Ν	Ν	NR	Y	Ν	NR	Y	N	NR
EI	F	2.5-3.0	2;6	Y	Ν	Y	Y	Y	Ν	Y	Ν	Y	Ν	Ν	Ν	Y	Ν	Y	Ν	Ν	Ν
HA	М	2.5-3.0	2;7	NR	NR	Y	Y	Y	Ν	Y	Ν	Y	Ν	Ν	Ν	Y	Y	Y	Ν	Ν	Ν
ZU	F	2.5-3.0	2;7	Y	Y	Y	Y	Ν	Ν	Y	Ν	Y	Ν	Ν	Ν	Y	Ν	Y	Ν	Ν	NR
FB	F	2.5-3.0	2;8	Y	Y	Y	Y	Y	Ν	Y	Y	Y	Y	Ν	NR	Y	Y	NR	Ν	Ν	NR
BI	М	2.5-3.0	2;11	Y	Ν	Y	Ν	Y	Ν	Y	Y	Y	Ν	Ν	Ν	Y	Y	Y	Ν	Ν	Ν

9.5.2.2 Noun Punjabi

9.5.2.3	Verb	Urdu
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	VERB URDU															
Responden t	Gender	Age Group	DoB				Pres	ent				Past		Infiniti	ve	Imperativ e
						Progress	ive		Habitual	Perfect	Progressiv e	Habitual	Perfect	Nominative	Oblique	Request Form
				Gen	nder	Nui	nber	Person								
				М	F	S	Pl	3								
AR	М	2.5-3.0	2;7	Y	Y	Y	Ν	Y	NR	Y	Y	NR	NR	NR	NR	NR
DA	Μ	2.5-3.0	2;9	Y	Y	Y	Y	Ν	NR	Y	Y	NR	NR	NR	Y	Y
SA	F	2.5-3.0	2;10	Y	Y	Y	Y	Y	NR	Y	Y	NR	Y	NR	NR	Y
AF	F	2.5-3.0	2;10	Y Y Y N N				Ν	NR	Y	Y	NR	Y	NR	NR	IP
GU	М	2.5-3.0	3;0	Y	Y	Y	Y	Y	Y	Y	Y	NR	NR	Y	Y	Y
ZD	F	2.5-3.0	3;0	Y	Y	Y	Ν	Y	Y	Y	NR	NR	Y	NR	NR	Y

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1.3.4.7		w

	VERB PUNJABI															
Respondent	Gender	Age Group	DoB				Pı	resent				Past		Infinit	ive	Imperative
		Group			Р	rogress	ive		Habitual	Perfect	Progressive	Habitual	Perfect	Nominative	Oblique	Request Form
				Gen	der	Nurr	nber	Person								
				М	F	S	Pl	3								
EI	F	2.5-3.0	2;6	Ν	IP	Ν	Ν	Ν	Y	Y	NR	NR	NR	Y	NR	Y
HN	Μ	2.5-3.0	2;6	IP	Y	IP	Ν	Y	Y	Y	NR	Y	NR	NR	NR	IP
HA	Μ	2.5-3.0	2;7	IP	IP	IP	IP	IP	Y	Y	NR	NR	NR	NR	NR	IP
ZU	F	2.5-3.0	2;7	Ν	Ν	Ν	Y	Ν	NR	Y	NR	NR	NR	Y	NR	IP
FB	F	2.5-3.0	2;8	IP	Y	NR	Y	NR	Y	Y	NR	NR	NR	NR	NR	IP
BI	Μ	2.5-3.0	2;11	Y	Y	Y	Ν	NR	Y	Y	NR	NR	Y	Y	NR	Y

7.3.2.3 Agreement Uruu	9.5.2.5	Agreement	Urdu
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					A	AGREEM	ENT UR	DU					
Respondent	Gender	Age Group	DoB				Adje N Agre	ctive – oun ement				Subject- Verb Agreement	Object- Verb Agreement
				Case Ma Sing	asculine Jular	Case M Plu	asculine Iral	Case Fe Sing	eminine gular	Case Fe Plu	eminine Iral		-
				Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli		
AR	М	2.5-3.0	2;7	Y	Ν	IP	Ν	Y	Ν	Ν	Ν	Y	Y
DA	М	2.5-3.0	2;9	Y	Ν	IP	Ν	IP	Ν	Ν	NR	Y	Y
AF	F	2.5-3.0	2;10	Y	Y	Y	Ν	Y	Y	IP	Y	Y	Y
SA	F	2.5-3.0	2;10	Y	Ν	Y	Ν	IP	Ν	IP	Ν	Y	Y
GU	М	2.5-3.0	3;0	Y	Ν	IP	Ν	Y	Y	Ν	Ν	Y	Y
ZD	F	2.5-3.0	3;0	IP	Ν	IP	Ν	Y	Ν	Ν	Ν	Y	Y

9.5.2.6	Agreement	Puniabi
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					A	GREEME	NT PUN	JABI					
Respondent	Gender	Age Group	DoB				Adje No Agre	ective- oun ement				Subject- Verb Agreement	Object- Verb Agreement
				Case Ma Sing	asculine ular	Case Ma Plu	asculine ral	Case Fe Sing	eminine jular	Case Fe Plu	eminine Iral	8	8
				Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli		
HN	М	2.5-3.0	2;6	N	Ν	Ν	NR	IP	NR	IP	NR	Y	Y
EI	F	2.5-3.0	2;6	IP	Ν	IP	Ν	IP	Ν	Ν	Ν	Y	NR
ZU	F	2.5-3.0	2;7	IP	NR	NR	NR	Ν	NR	NR	NR	Y	IP
HA	М	2.5-3.0	2;7	Ν	Ν	Ν	IP	IP	NR	Ν	NR	Y	Y
FB	F	2.5-3.0	2;8	Y	Ν	IP	Ν	Y	Ν	Ν	Ν	Y	Y
BI	М	2.5-3.0	2;11	Ν	Ν	Y	Ν	Y	Ν	IP	Ν	Y	Y

9.5.3 Bilingual Groups Data Summary

9.5.3.1 Noun Urdu

									NOUN	URDU									
Age Group	Response	e Ge	ender	M Nı	umber	F Nu	mber	Cas	se Mascu Singular	line	Cas	e Mascu Plural	uline	Case F	Feminine	e Singula	r C	ase Fem Plura	inine 1
		М	F	S	Pl	S	Pl	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca
		3	2	6	3	1	0	6	3	5	4	0	1	6	3	5	4	0	0
	Y	50%	33%	100 %	50%	17%	0%	100%	50%	83%	67%	0%	17%	100 %	50%	83%	67%	0%	0%
		2	4	0	3	5	5	0	1	1	2	6	4	0	1	0	2	5	6
3.0-	N	33%	67%	0%	50%	83%	83 %	0%	17%	17%	33%	100 %	67%	0%	17%	0%	33%	83%	100%
3.5		1	0	0	0	0	1	0	2	0	0	0	0	0	2	0	0	1	0
	IP	17%	0%	0%	0%	0%	17 %	0%	33%	0%	0%	0%	0%	0%	33%	0%	0%	17%	0%
	ND	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
	INK	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%	0%	0%	17%	0%	0%	0%
		4	4	6	5	3	2	6	6	4	6	0	0	6	6	6	6	0	0
	Y	67%	67%	100 %	83%	50%	33 %	100%	100%	67%	100%	0%	0%	100 %	100 %	100 %	100%	0%	0%
		2	2	0	0	3	4	0	0	2	0	5	6	0	0	0	0	1	6
3.5-	N	33%	33%	0%	0%	50%	67 %	0%	0%	33%	0%	83%	100%	0%	0%	0%	0%	17%	100%
4.0	ID	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	5	0
	IP	0%	0%	0%	17%	0%	0%	0%	0%	0%	0%	17%	0%	0%	0%	0%	0%	83%	0%
	ND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	INK	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Y	3	6	6	5	5	2	5	6	5	5	1	1	6	5	6	6	1	0

		50%	100 %	100 %	83%	83%	33 %	83%	100%	83%	83%	17%	17%	100 %	83%	100 %	100%	17%	0%
		3	0	0	0	1	4	1	0	1	1	2	5	0	0	0	0	0	5
4.0- 4.5	Ν	50%	0%	0%	0%	17%	67 %	17%	0%	17%	17%	33%	83%	0%	0%	0%	0%	0%	83%
	IP	0	0	0	1	0	0	0	0	0	0	3	0	0	1	0	0	5	0
	11	0%	0%	0%	17%	0%	0%	0%	0%	0%	0%	50%	0%	0%	17%	0%	0%	83%	0%
	NR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	1.11	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%
		3	6	6	6	5	2	6	6	4	6	1	0	6	6	6	2	2	0
	Ŷ	50%	100 %	100 %	100 %	83%	33 %	100%	100%	67%	100%	17%	0%	100 %	100 %	100 %	33%	33%	0%
		3	0	0	0	1	2	0	0	2	0	5	6	0	0	0	0	0	5
4.5-	Ν	50%	0%	0%	0%	17%	33 %	0%	0%	33%	0%	83%	100%	0%	0%	0%	0%	0%	83%
5.0		0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	4	4	1
	IP	0%	0%	0%	0%	0%	33 %	0%	0%	0%	0%	0%	0%	0%	0%	0%	67%	67%	17%
	NR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	INK	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
		5	4	6	2	5	1	5	5	2	4	2	0	6	5	2	2	4	0
	Y	83%	67%	100 %	33%	83%	17 %	83%	83%	33%	67%	33%	0%	100 %	83%	33%	33%	67%	0%
		1	2	0	0	1	3	1	1	4	2	4	6	0	0	3	1	0	6
5.0-	Ν	17%	33%	0%	0%	17%	50 %	17%	17%	67%	33%	67%	100%	0%	0%	50%	17%	0%	100%
5.5		0	0	0	4	0	2	0	0	0	0	0	0	0	0	0	3	2	0
	IP	0%	0%	0%	67%	0%	33 %	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	33%	0%
	NR	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
	INIX	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%	17%	0%	0%	0%

		6	6	6	3	6	1	6	5	5	1	2	0	6	5	4	2	6	0
	Y	100%	100 %	100 %	50%	100 %	17 %	100%	83%	83%	17%	33%	0%	100 %	83%	67%	33%	100%	0%
		0	0	0	0	0	1	0	1	1	3	2	5	0	1	1	0	0	5
5.5-	Ν	0%	0%	0%	0%	0%	17 %	0%	17%	17%	50%	33%	83%	0%	17%	17%	0%	0%	83%
6.0		0	0	0	3	0	4	0	0	0	2	2	0	0	0	0	4	0	0
	IP	0%	0%	0%	50%	0%	67 %	0%	0%	0%	33%	33%	0%	0%	0%	0%	67%	0%	0%
	ND	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1
	INK	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%	0%	0%	17%	0%	0%	17%

9.5.3.2 Noun Punjabi

								NO	UN PU	NJAB	[
Age Group	Response	Ger	nder	M Nı	umber	F Nu	mber	Cas	e Mascu Singular	line	Case	e Mascu Plural	ıline	Cas	se Femin Singular	ine	Cas	e Femin Plural	nine
1		М	F	S	Pl	S	Pl	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nom i	Obli	Voca
	v	4	6	6	4	6	3	6	1	4	5	0	0	6	4	6	2	1	0
	1	67%	100%	100%	67%	100%	50%	100%	17%	67%	83%	0%	0%	100%	67%	100%	33%	17%	0%
	N	2	0	0	2	0	3	0	5	1	1	5	4	0	1	0	4	5	5
	1	33%	0%	0%	33%	0%	50%	0%	83%	17%	17%	83%	67%	0%	17%	0%	67%	83%	83%
3.0-3.5	TD	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
	IP	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%	0%	0%	17%	0%	0%	0%	0%
	ND	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	1
	INK	0%	0%	0%	0%	0%	0%	0%	0%	17%	0%	0%	33%	0%	0%	0%	0%	0%	17%
	V	6	6	6	6	6	6	6	6	4	6	4	0	6	6	6	6	5	0
2540	ĭ	100%	100%	100%	100%	100%	100%	100%	100%	67%	100%	67%	0%	100%	100%	100%	100%	83%	0%
3.3-4.0	N	0	0	0	0	0	0	0	0	2	0	2	5	0	0	0	0	1	6
	IN	0%	0%	0%	0%	0%	0%	0%	0%	33%	0%	33%	83%	0%	0%	0%	0%	17%	100%

	ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IF	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	ND	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	INK	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%	0%	0%	0%	0%	0%	0%
	V	6	6	6	5	6	5	6	6	4	6	3	0	6	6	6	6	5	0
	Ĭ	100%	100%	100%	83%	100%	83%	100%	100%	67%	100%	50%	0%	100%	100%	100%	100%	83%	0%
	N	0	0	0	1	0	0	0	0	2	0	2	6	0	0	0	0	0	6
	N	0%	0%	0%	17%	0%	0%	0%	0%	33%	0%	33%	100%	0%	0%	0%	0%	0%	100%
4.0-4.5	ID	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	0
	IP	0%	0%	0%	0%	0%	17%	0%	0%	0%	0%	17%	0%	0%	0%	0%	0%	17%	0%
	ND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NK	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	••	6	6	6	6	6	5	6	5	5	5	4	0	6	6	6	6	6	1
	Ŷ	100%	100%	100%	100%	100%	83%	100%	83%	83%	83%	67%	0%	100%	100%	100%	100%	100%	17%
		0	0	0	0	0	0	0	0	1	1	2	5	0	0	0	0	0	5
	Ν	0%	0%	0%	0%	0%	0%	0%	0%	17%	17%	33%	83%	0%	0%	0%	0%	0%	83%
4.5-5.0		0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
	IP	0%	0%	0%	0%	0%	17%	0%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	NR	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%	0%	0%	0%	0%	0%	0%
		6	6	6	6	6	5	5	4	2	6	3	0	6	6	3	6	4	0
	Y	100%	100%	100%	100%	100%	83%	83%	67%	33%	100%	50%	0%	100%	100%	50%	100%	67%	0%
		0	0	0	0	0	0	1	1	4	0	2	6	0	0	2	0	0	5
	Ν	0%	0%	0%	0%	0%	0%	17%	17%	67%	0%	33%	100%	0%	0%	33%	0%	0%	83%
5.0-5.5		0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2	0
	IP	0%	0%	0%	0%	0%	17%	0%	17%	0%	0%	17%	0%	0%	0%	0%	0%	33%	0%
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	NR	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%	0%	0%	17%
		6	6	6	6	6	4	6	6	2	6	3	0	6	6	3	6	6	0
5.5-6.0	Ŷ	100%	100%	100%	100%	100%	67%	100%	100%	33%	100%	50%	0%	100%	100%	50%	100%	100%	0%

N	0	0	0	0	0	0	0	0	3	0	1	5	0	0	2	0	0	5
N	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	17%	83%	0%	0%	33%	0%	0%	83%
ID	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0
Ir	0%	0%	0%	0%	0%	33%	0%	0%	0%	0%	33%	0%	0%	0%	0%	0%	0%	0%
ND	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	1
INK	0%	0%	0%	0%	0%	0%	0%	0%	17%	0%	0%	17%	0%	0%	17%	0%	0%	17%

							VE	RB URD	U					
Age Group	Response				Prese	ent				Past		Infinit	tive	Imperative
			Pr	ogressive	e		Habitual	Perfect	Progressive	Habitual	Perfect	Nominative	Oblique	Request Form
		Ger	nder	Nur	nber	Person								
		М	F	S	P1	3								
	V	4	5	4	3	4	3	6	2	0	3	2	1	5
	ľ	67%	83%	67%	50%	67%	50%	100%	33%	0%	50%	33%	17%	83%
	N	0	0	0	1	0	0	0	0	0	0	0	0	1
2025	IN	0%	0%	0%	17%	0%	0%	0%	0%	0%	0%	0%	0%	17%
3.0-3.5	ID	2	1	2	2	2	3	0	0	0	1	0	0	0
	IP	33%	17%	33%	33%	33%	50%	0%	0%	0%	17%	0%	0%	0%
	ND	0	0	0	0	0	0	0	4	6	2	4	5	0
	NK	0%	0%	0%	0%	0%	0%	0%	67%	100%	33%	67%	83%	0%
	V	5	6	5	4	5	4	4	3	0	3	5	0	6
	ľ	83%	100%	83%	67%	83%	67%	67%	50%	0%	50%	83%	0%	100%
	N	0	0	0	0	0	0	0	0	0	0	0	0	0
3 5-4 0	IN	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
5.5 4.0	ID	1	0	1	2	1	0	1	0	0	1	0	0	0
	IP	17%	0%	17%	33%	17%	0%	17%	0%	0%	17%	0%	0%	0%
	NR	0	0	0	0	0	2	1	3	6	2	1	6	0
	INK	0%	0%	0%	0%	0%	33%	17%	50%	100%	33%	17%	100%	0%
	Y	5	6	5	5	6	4	5	3	0	5	2	0	6
	*	83%	100%	83%	83%	100%	67%	83%	50%	0%	83%	33%	0%	100%

9.5.3.3 Verb Urdu

	N	0	0	0	0	0	0	0	0	0	0	0	0	0
4.0-4.5	IN	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	ID	1	0	1	1	0	0	1	0	0	0	0	1	0
	11	17%	0%	17%	17%	0%	0%	17%	0%	0%	0%	0%	17%	0%
	NR	0	0	0	0	0	2	0	3	6	1	4	5	0
	MK	0%	0%	0%	0%	0%	33%	0%	50%	100%	17%	67%	83%	0%
	v	6	5	6	6	5	3	6	3	0	5	6	2	5
	1	100%	83%	100%	100%	83%	50%	100%	50%	0%	83%	100%	33%	83%
	N	0	0	0	0	0	0	0	0	0	0	0	0	0
4 5-5 0	1	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
4.5-5.0	IP	0	1	0	0	1	0	0	1	1	0	0	0	1
	п	0%	17%	0%	0%	17%	0%	0%	17%	17%	0%	0%	0%	17%
	NR	0	0	0	0	0	3	0	2	5	1	0	4	0
	MK	0%	0%	0%	0%	0%	50%	0%	33%	83%	17%	0%	67%	0%
	v	6	6	6	6	6	5	6	1	3	5	5	2	5
	1	100%	100%	100%	100%	100%	83%	100%	17%	50%	83%	83%	33%	83%
	N	0	0	0	0	0	0	0	0	0	0	0	0	1
	1	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%
5.0-5.5	IP	0	0	0	0	0	0	0	0	1	0	0	0	0
	11	0%	0%	0%	0%	0%	0%	0%	0%	17%	0%	0%	0%	0%
		0	0	0	0	0	1	0	5	2	1	1	4	0
	NR	0%	0%	0%	0%	0%	17%	0%	83%	33%	17%	17%	67%	0%
	V	6	6	6	5	6	6	5	2	0	2	6	2	6
	1	100%	100%	100%	83%	100%	100%	83%	33%	0%	33%	100%	33%	100%

5.5-6.0	N	0	0	0	0	0	0	0	0	0	0	0	0	0
	IN	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	ID	0	0	0	1	0	0	1	0	0	0	0	1	0
	IP	0%	0%	0%	17%	0%	0%	17%	0%	0%	0%	0%	17%	0%
	ND	0	0	0	0	0	0	0	4	6	4	0	3	0
	INK	0%	0%	0%	0%	0%	0%	0%	67%	100%	67%	0%	50%	0%

VERB PUNJABI														
Age Group	Response				Present				Past			Infiniti	ve	Imperative
ŕ				Progres	sive		Habitual	Perfect	Progressive	Habitual	Perfect	Nominativ e	Oblique	Request Form
		Gender		Nu	mber	Person	-							
		М	F	S	Pl	3								
	v	5	4	4	2	5	6	6	2	1	3	3	3	5
	1	83%	67%	67%	33%	83%	100%	100%	33%	17%	50%	50%	50%	83%
	N	0	0	0	4	0	0	0	0	0	0	0	0	0
2025	19	0%	0%	0%	67%	0%	0%	0%	0%	0%	0%	0%	0%	0%
5.0-5.5	ID	1	2	1	0	1	0	0	0	1	0	0	0	1
	п	17%	33%	17%	0%	17%	0%	0%	0%	17%	0%	0%	0%	17%
	NR	0	0	1	0	0	0	0	4	4	3	3	3	0
		0%	0%	17%	0%	0%	0%	0%	67%	67%	50%	50%	50%	0%
	V	6	6	6	6	6	5	6	3	4	5	5	3	6
	1	100%	100%	100%	100%	100%	83%	100%	50%	67%	83%	83%	50%	100%
	N	0	0	0	0	0	0	0	0	0	0	0	0	0
2540	IN	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
3.5-4.0	ID	0	0	0	0	0	0	0	0	0	0	0	0	0
	IF	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	ND	0	0	0	0	0	1	0	3	2	1	1	3	0
	NK	0%	0%	0%	0%	0%	17%	0%	50%	33%	17%	17%	50%	0%
	V	5	5	5	4	5	4	4	2	0	5	2	0	6
	Y	83%	83%	83%	67%	83%	67%	67%	33%	0%	83%	33%	0%	100%
	Ν	0	0	0	0	0	0	0	0	0	0	0	0	0

9.5.3.4 Verb Punjabi

4.0-4.5		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	ID	1	1	1	2	1	0	1	0	0	0	0	0	0
	IF	17%	17%	17%	33%	17%	0%	17%	0%	0%	0%	0%	0%	0%
	ND	0	0	0	0	0	2	1	4	6	1	4	6	0
	INK	0%	0%	0%	0%	0%	33%	17%	67%	100%	17%	67%	100%	0%
	v	6	6	5	6	5	2	6	1	0	3	4	4	6
	1	100%	100%	83%	100%	83%	33%	100%	17%	0%	50%	67%	67%	100%
4.5-5.0	N	0	0	0	0	0	0	0	0	0	0	0	0	0
	19	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	ID	0	0	1	0	1	0	0	1	0	1	1	0	0
	11	0%	0%	17%	0%	17%	0%	0%	17%	0%	17%	17%	0%	0%
	ND	0	0	0	0	0	4	0	4	6	2	1	2	0
	INK	0%	0%	0%	0%	0%	67%	0%	67%	100%	33%	17%	33%	0%
	v	6	6	6	6	6	1	5	0	1	4	5	4	5
	Ŷ	100%	100%	100%	100%	100%	17%	83%	0%	17%	67%	83%	67%	83%
	N	0	0	0	0	0	0	0	0	0	0	0	0	1
5055	N	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%
5.0-5.5	ID	0	0	0	0	0	1	0	0	1	0	0	0	0
	11	0%	0%	0%	0%	0%	17%	0%	0%	17%	0%	0%	0%	0%
	ND	0	0	0	0	0	4	1	6	4	2	1	2	0
	INK	0%	0%	0%	0%	0%	67%	17%	100%	67%	33%	17%	33%	0%
	v	6	6	6	6	6	5	6	0	2	3	6	3	6
	1	100%	100%	100%	100%	100%	83%	100%	0%	33%	50%	100%	50%	100%
	N	0	0	0	0	0	0	0	0	0	0	0	0	0
5560	19	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
3.3-0.0	ID	0	0	0	0	0	0	0	0	0	0	0	0	0
	11	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	ND	0	0	0	0	0	1	0	6	4	3	0	3	0
	INK	0%	0%	0%	0%	0%	17%	0%	100%	67%	50%	0%	50%	0%

AGREEMENT URDU													
Age Group	Response				Adjectiv Agree	e-Noun ment				Subject-Verb Agreement	Object-Verb Agreement		
		Case Mascul	ine Singular	Case Masc	uline Plural	Case Femini	ine Singular	Case Femin	ine Plural				
		Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli				
	V	3	0	1	0	3	2	1	0	6	3		
	1	50%	0%	17%	0%	50%	33%	17%	0%	100%	50%		
	N	1	4	1	6	0	4	0	4	0	0		
3.0-3.5	IN	17%	67%	17%	100%	0%	67%	0%	67%	0%	0%		
	ID	2	2	4	0	3	0	5	2	0	3		
	11	33%	33%	67%	0%	50%	0%	83%	33%	0%	50%		
	NR	0	0	0	0	0	0	0	0	0	0		
		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
	V	6	2	4	0	6	5	0	1	6	6		
	Ŷ	100%	33%	67%	0%	100%	83%	0%	17%	100%	100%		
	N	0	0	1	5	0	0	0	1	0	0		
	N	0%	0%	17%	83%	0%	0%	0%	17%	0%	0%		
3.5-4.0	ID	0	4	1	1	0	1	6	4	0	0		
	IP	0%	67%	17%	17%	0%	17%	100%	67%	0%	0%		
		0	0	0	0	0	0	0	0	0	0		
	NR	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
	Y	6	5	6	1	6	5	0	1	6	6		

9.5.3.5 Agreement Urdu

		100%	83%	100%	17%	100%	83%	0%	17%	100%	100%
	N	0	1	0	5	0	1	0	3	0	0
	IN	0%	17%	0%	83%	0%	17%	0%	50%	0%	0%
4.0-4.5	ID	0	0	0	0	0	0	6	2	0	0
	IP	0%	0%	0%	0%	0%	0%	100%	33%	0%	0%
	ND	0	0	0	0	0	0	0	0	0	0
	INK	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	V	6	6	6	0	6	5	0	1	6	6
	ľ	100%	100%	100%	0%	100%	83%	0%	17%	100%	100%
	N	0	0	0	5	0	0	0	2	0	0
1550	IN	0%	0%	0%	83%	0%	0%	0%	33%	0%	0%
4.3-3.0	ID	0	0	0	1	0	1	6	3	0	0
	Ir	0%	0%	0%	17%	0%	17%	100%	50%	0%	0%
	ND	0	0	0	0	0	0	0	0	0	0
	INK	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	v	6	4	6	2	6	6	2	1	6	6
	1	100%	67%	100%	33%	100%	100%	33%	17%	100%	100%
	N	0	0	0	4	0	0	0	2	0	0
	IN	0%	0%	0%	67%	0%	0%	0%	33%	0%	0%
5.0-5.5	ID	0	2	0	0	0	0	4	3	0	0
	11	0%	33%	0%	0%	0%	0%	67%	50%	0%	0%
	ND	0	0	0	0	0	0	0	0	0	0
	INK	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	37	5	6	6	4	6	6	1	4	6	6
	Ŷ	83%	100%	100%	67%	100%	100%	17%	67%	100%	100%

	N	1	0	0	1	0	0	0	0	0	0
5.5-6.0	IN	17%	0%	0%	17%	0%	0%	0%	0%	0%	0%
	ID	0	0	0	1	0	0	5	2	0	0
	IP	0%	0%	0%	17%	0%	0%	83%	33%	0%	0%
	ND	0	0	0	0	0	0	0	0	0	0
	INIX	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

AGREEMENT PUNJABI												
Age Group	Response				Adjectiv Agree	ve-Noun ement				Subject- Verb	Object-Verb Agreement	
		Case Mas	culine Singular	Case Masc	uline Plural	Case Femin	ine Singular	Case Femir	nine Plural	Agreement		
		Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli			
	V	4	2	3	0	2	3	3	1	6	5	
	Ĭ	67%	33%	50%	0%	33%	50%	50%	17%	100%	83%	
	N	0	2	0	6	1	2	2	5	0	0	
3 0-3 5	N	0%	33%	0%	100%	17%	33%	33%	83%	0%	0%	
5.0-5.5	Ш	2	2	3	0	3	1	1	0	0	1	
	IP	33%	33%	50%	0%	50%	17%	17%	0%	0%	17%	
	ND	0	0	0	0	0	0	0	0	0	0	
	NK	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	v	5	4	6	1	6	6	б	5	6	6	
	Y	83%	67%	100%	17%	100%	100%	100%	83%	100%	100%	
	N	1	0	0	5	0	0	0	0	0	0	
2540	IN	17%	0%	0%	83%	0%	0%	0%	0%	0%	0%	
3.5-4.0	ID	0	1	0	0	0	0	0	1	0	0	
	IP	0%	17%	0%	0%	0%	0%	0%	17%	0%	0%	
	ND	0	1	0	0	0	0	0	0	0	0	
	NK	0%	17%	0%	0%	0%	0%	0%	0%	0%	0%	
	V	6	5	6	2	6	3	4	4	6	6	
	Ŷ	100%	83%	100%	33%	100%	50%	67%	67%	100%	100%	
	N	0	0	0	4	0	1	0	1	0	0	
4.0-4.5	Ν	0%	0%	0%	67%	0%	17%	0%	17%	0%	0%	

9.5.3.6 Agreement Punjabi

	TD	0	1	0	0	0	2	2	1	0	0
	IF	0%	17%	0%	0%	0%	33%	33%	17%	0%	0%
	ND	0	0	0	0	0	0	0	0	0	0
	INK	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	V	6	6	6	4	6	6	4	4	6	6
	Ĭ	100%	100%	100%	67%	100%	100%	67%	67%	100%	100%
	N	0	0	0	2	0	0	0	1	0	0
1550	IN	0%	0%	0%	33%	0%	0%	0%	17%	0%	0%
4.5-5.0	ID	0	0	0	0	0	0	2	1	0	0
	IP	0%	0%	0%	0%	0%	0%	33%	17%	0%	0%
	ND	0	0	0	0	0	0	0	0	0	0
	INK	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	V	6	4	6	1	6	5	4	4	6	6
	Ĭ	100%	67%	100%	17%	100%	83%	67%	67%	100%	100%
	N	0	0	0	5	0	0	0	2	0	0
5055	IN	0%	0%	0%	83%	0%	0%	0%	33%	0%	0%
5.0-5.5	ID	0	2	0	0	0	1	2	0	0	0
	IF	0%	33%	0%	0%	0%	17%	33%	0%	0%	0%
	ND	0	0	0	0	0	0	0	0	0	0
	INK	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	v	6	5	5	4	6	6	6	4	6	6
	1	100%	83%	83%	67%	100%	100%	100%	67%	100%	100%
	N	0	1	1	1	0	0	0	0	0	0
5560	IN	0%	17%	17%	17%	0%	0%	0%	0%	0%	0%
5.5-0.0	TD	0	0	0	0	0	0	0	0	0	0
	IF	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	ND	0	0	0	1	0	0	0	2	0	0
	INK	0%	0%	0%	17%	0%	0%	0%	33%	0%	0%
9.5.4 Monolingual Group Data Summary

9.5.4.1 Noun Urdu

	NOUN URDU																		
Age	Respons e	Gender		M Number		F Number		Case Masculine		Case Masculine			Case Feminine Singular			Case Feminine Plural			
F		М	F	S	Pl	S	Pl	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nom i	Obl i	Voc a
	Y	0	4	6	0	5	0	6	2	3	0	0	0	5	1	6	2	0	0
		0%	67 %	100 %	0%	83 %	0%	100%	33%	50%	0%	0%	0%	83%	17%	100%	33%	0%	0%
	N	3	1	0	3	1	3	0	4	2	б	6	5	0	4	0	4	4	4
2.5-		50 %	17 %	0%	50 %	17 %	50 %	0%	67%	33%	100%	100%	83%	0%	67%	0%	67%	67%	67%
3.0		2	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0
	IP	33 %	0%	0%	50 %	0%	50 %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
		1	1	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	2
	NR	17 %	17 %	0%	0%	0%	0%	0%	0%	17%	0%	0%	17%	17%	17%	0%	0%	33%	33%

	NOUN PUNJABI																		
Age Group	Response	Gender		M Number		F Number		Case Masculine Singular		Case Masculine Plural			Case Feminine Singular			Case Feminine Plural			
		М	F	S	Pl	S	Pl	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca	Nomi	Obli	Voca
	V	5	3	6	4	5	0	6	2	5	1	0	0	6	3	4	1	0	0
	Ĩ	83%	50%	100%	67%	83%	0%	100%	33%	83%	17%	0%	0%	100%	50%	67%	17%	0%	0%
	N	0	2	0	1	1	6	0	4	0	5	6	4	0	3	0	5	6	3
2520	IN	0%	33%	0%	17%	17%	100%	0%	67%	0%	83%	100%	67%	0%	50%	Ininine Singular Case Obli Voca Nom 3 4 1 50% 67% 17% 3 0 5 50% 0% 83% 0 0 0 0% 0% 0% 0% 2 0 0% 33% 0%	83%	100%	50%
2.5-5.0	ID	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	IF	0%	0%	0%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	Normalization Singular Canadity Obli Voca Normalization 3 4 50% 67% 1" 3 0 50% 0% 50% 0% 0% 0 0 0 0 0 0 0 0 0 0% 0% 33% 0	0%	0%	0%
	ND	1	1	0	0	0	0	0	0	1	0	0	2	0	0	2	0	0	3
	INK	17%	17%	0%	0%	0%	0%	0%	0%	17%	0%	0%	33%	0%	0%	33%	0%	0%	50%

9.5.4.2 Noun Punjabi

	VERB PUNJABI														
Age Group	Response				Pı	resent				Past		Infiniti	Imperative		
			Р	rogressiv	/e		Habitual	Perfect	Progressive	Habitual	Perfect	Nominative	Oblique	Request Form	
		Gender Number				Person									
		М	F	S	Pl	3									
	V	6	6	6	3	4	2	6	5	0	3	1	2	4	
	1	100%	100%	100%	50%	67%	33%	100%	83%	0%	50%	17%	33%	67%	
	N	0	0	0	3	2	0	0	0	0	0	0	0	0	
2520	IN	0%	0%	0%	50%	33%	0%	0%	0%	0%	0%	0%	0%	0%	
2.5-5.0	ID	0	0	0	0	0	0	0	0	0	0	0	0	1	
	IF	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%	
	ND	0	0	0	0	0	4	0	1	6	3	5	4	1	
	NR	0%	0%	0%	0%	0%	67%	0%	17%	100%	50%	83%	67%	17%	

	VERB PUNJABI														
Age Group	Response				Pre	esent				Past		Infinit	Imperative		
			I	Progress	ive		Habitual	Perfect	Progressive	Habitual	Perfect	Nominative	Oblique	Request Form	
		Gen	Gender Number Person												
		М	F	S	Pl	3						_			
	Y	1	3	1	2	1	5	6	0	1	1	3	0	2	
		17%	50%	17%	33%	17%	83%	100%	0%	17%	17%	50%	0%	33%	
	N	2	1	2	3	2	0	0	0	0	0	0	0	0	
2520	IN	33%	17%	33%	50%	33%	0%	0%	0%	0%	0%	0%	0%	0%	
2.5-5.0	ID	3	2	2	1	1	0	0	0	0	0	0	0	4	
	IP	50%	33%	33%	17%	17%	0%	0%	0%	0%	0%	0%	0%	67%	
	ND	0	0	1	0	2	1	0	6	5	5	3	6	0	
	NR	0%	0%	17%	0%	33%	17%	0%	100%	83%	83%	50%	100%	0%	

9.5.4.4 Verb Punjabi

	AGREEMENT URDU														
Age Group	Response			Subject-Verb Agreement	Object-Verb Agreement										
	Case Masculine Singular				uline Plural	Case Femini	ne Singular	Case Femin	ine Plural						
		Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli						
	Y	5	1	2	0	4	2	0	1	6	6				
		83%	17%	33%	0%	67%	33%	0%	17%	100%	100%				
	N	0	5	0	6	0	4	4	4	0	0				
2 5-3 0	1	0%	83%	0%	100%	0%	67%	67%	67%	0%	0%				
2.5-5.0	ID	1	0	4	0	2	0	2	0	0	0				
	11	17%	0%	67%	0%	33%	0%	33%	0%	0%	0%				
	ND	0	0	0	0	0	0	0	1	0	0				
	NR	0%	0%	0%	0%	0%	0%	0%	17%	0	0				

9.5.4.5 Agreement Urdu

AGREEMENT PUNJABI														
Age Group	Response			Subject-Verb Agreement	Object-Verb Agreement									
		Case Mascul	ine Singular	Case Mascu	line Plural	Case Femini	ne Singular	Case Femin	ine Plural					
		Nomi	Obli	Nomi	Obli	Nomi	Obli	Nomi	Obli					
	Y	1	0	1	0	2	0	0	0	6	4			
		17%	0%	17%	0%	33%	0%	0%	0%	100%	67%			
	N	3	5	2	3	1	3	3	3	0	0			
2520	IN	50%	83%	33%	50%	17%	50%	50%	50%	0%	0%			
2.5-5.0	ID	2	0	2	1	3	0	2	0	0	1			
	IF	33%	0%	33%	17%	50%	0%	33%	0%	0%	17%			
	ND	0	1	1	2	0	3	1	3	0	1			
	NR	0%	17%	17%	33%	0%	50%	17%	50%	0%	17%			

9.5.4.6 Agreement Punjabi