

NICKNAMING PATTERNS IN URDU LANGUAGE

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ABSTRACT

This work on nicknaming patterns involves the study of the nicknames formed out of the names of Urdu Language. It further checks the possible factors like syllabification, sonority, stress, gemination, intensity, formant frequencies and so on, that helps in the formation of a nickname. In addition to that the rules of phonology are also used in forming a nickname. In the end an algorithm is established based on the facts revealed from this research that generates a nickname out of a name given to it.

1. INTRODUCTION

The word URDU is a Turkish word, which means 'horde' or 'foreign'. This just shows that the language represents its origin being an amalgamation of foreigners with the natives of South Asia. Urdu involves numerous elements of Arabic as well as Persian besides the words taken from Sanskrit, Hindi and many other foreign languages. These languages play an important role both phonetically and phonologically. Urdu is a language full of charm and elegance, and that could be easily judged by the names assigned to people. The naming patterns in Urdu have certain uniqueness and they are influenced mostly from Arabic and Persian and a little bit from Hindi. The naming methodology in Urdu suggests that names of people have certain significance. Either they have a religious significance or it reveals a particular personality trait of a person. Therefore when the nicknames are chosen, there are certain factors that effect its formation. The discussion in this paper is focused on nicknames, their formation strategy and their pattern.

2. PROBLEM STATEMENT

The aim of this paper is to do the analysis on the pattern in which the names of people are changed into their nicknames. The research, analysis and discussion will try to figure out about any particular pattern that is observed, any possible rules under which this activity takes place and the constraints that determine the nicknames for different

names of Urdu Language. It further checks the possible factors like syllabification, sonority, stress, gemination and intensity. Nicknames are observed for different naming patterns as well.

3. LITERATURE REVIEW

There was no work done in past that is concerned with the names and their nickname formation. Therefore to carry on with this research an extensive study was done and different phonetic and phonological rules and techniques were explored for the analysis of the given data. For the analysis of any given data it is required that its phonetic contents and phonological contents are judged and the repercussion of phonetics over phonology is observed.

In any succession of sounds, some strike the ear forcibly than others. Difference of sonority plays a great part in the transition effect of vowels and vowel like sounds. In any succession of phonemes there will be an up and down of sonority (Gold Smith, 1990, p.111). It is evident that some of the phonemes are more sonorous than phonemes that immediately follow or proceed (See Appendix B). Any such field is a crest of sonority or a syllabic, i.e. it is the point where the sonority level changes from higher to lower or from lower to higher. The utterance is said to have as many syllables as it has syllabics. The ups and downs of syllabification play an important role in the phonetic structure of all languages (Bloomfield 1933: p.120-1). Sonority could play a role in formation of a nickname. When someone is called through his/her nickname it strikes forcibly to ears as compared to the original name.

There are two aspects of sounds, Physical and Psychological. On physical plane there are two factors involved, frequency or intensity and volume or pitch. These are used for the classification of tones and tunes. In addition to that it also determines the accent and intonation in a language.

On the psychological plane they are used as bricks in the edifice of a language and bear meanings when they combine to constitute

words (Sohail Bukhari, 1985, p.111). These are important factors in the formation of a nickname and are discussed in the next section.

Sound changing is a common feature in every spoken language. When a new word is formed its phonetic content is changed. These sound changes are done under certain rules. Some of these rules are: -

1. Metathesis – This occurs when consonant sounds change their places, with the vowels remaining intact. There occur three possibilities of this rule. One is that two simple sounds change their features. Secondly, words become completely reversed and thirdly, aspirated sounds become un-aspirated (Sohail Bukhari, 1985, p.26). An example of this technique is that /n ð b i l/ is changed to /b ð n n u/. In this nickname formation metathesis play a role along with deletion and epenthesis.
2. Elision – In this rule a medial vowel is lost in speech due to syllabification. For example /k ð l m ð h/ is changed to /k ð l m ð h/ (Sohail Bukhari, 1985, p.28).
3. Epenthesis – In this rule there is an insertion of an additional sound or phoneme in a word. For example the name /f ð z z ð l/ is changed to /p^h ð j j a/. There is an insertion of /p^h/ and /j/ while it is pronounced along with the deletion of /z/ and /l/ (Donna Jo Napoli, 1996, p.85)
4. Lengthening – This rule is often accompanied by some loss. In a word something is lost and some other sound is repeated twice. An example of this rule is the formation of /n ð j j o/ from /n u r j ð h ñ/. In this example lengthening of /j/ is accompanied by both epenthesis and deletion rule. Some researchers have assigned it a particular name called gemination (Donna Jo Napoli, 1996, p.86).
5. Assimilation – In this rule some feature tends to dominate some existing feature, which comes after or before the occurrence of the

existing feature. For example /m a n o/ from /e m ð n/, /ʃ ə o k i/ from /ð ʃ f a k/. In this case the stop /m/ and the fricative /ʃ/ tends to dominate the vowels (Donna Jo Napoli, 1996, p.73).

6. Compression – This is simply a shortening of a word. For example /k a m i/ from /k a m r a n/ and /k a ʃ i/ from /k a ʃ i f/ etc. (Sohail Bukhari, 1985, p.23)

Syllabification is the most important factor involved in formation of new words. Syllabification involves formation of a syllable, concept of moras, feet and prosodic word (Donna Jo Napoli, 1996, p.101-2). All these factors play an important role in formation of a new word. More over stress pattern is also determined through certain techniques (Donna Jo Napoli, 1996, p.113). Stress pattern is also determined through certain techniques (Clark and Yallop, 1992, p.299). These techniques were necessary to learn and apply as a lot of analysis is done through this and few important facts were revealed.

4. METHODOLOGY

For the accomplishment of the task of finding out the patterns of nicknames in Urdu a particular technique was used. The activity was started with the data collection. Around 150 names were chosen, amongst which 75 were of ¹males and other 75 of females. Different people were inquired about the formation of a possible nickname out of their names. Most of the nicknames were taken from the data collected from different people and few commonly used nicknames were added as an addition to the data collected. During this activity different conventions of forming a nickname and different influences on nicknames were observed. Some nicknames were simply a short form of their original names and some were formed in such a way to keep the feel of the original name.

4.1 Role of Other Languages and English

Judging whether the nicknames of Urdu names derived from other languages are

¹ The symbol “ ð ” is used as a shawa throughout the paper

dominated by the phonetic and phonemic theories of those languages started this study of nicknames.

For example there are names taken from Arabic like /ð b d u l l ð h/, /ð b d u l m a j i d/, /m u s t ð f a/, /a i ʃ a/ etc. then there are names from Persian origin like /j ð m ʃ e d/, /b a b u r/, /m ð h r u x/, /g u l r u x/ etc and there are names from Hindi origin like /ð m ð r/, /k ð v i t a/, /s ð n g i t a/ etc. When the nicknames are formed out of these names is there any effect of their origin on them? Another interesting fact is that English, being an International Language has also influenced the nicknames. This is mainly because it is spoken as a second language and an official language in Pakistan and in addition to that the mushroom growth of English media penetrating through TV, Satellite, Radio and Newspapers. People often tend to form a nickname, which is dominated phonetically and phonologically by English.

4.2 Conventions of Assigning Names

There are different naming techniques used in Urdu language. One of them is of assigning a single word having a particular meaning and some special significance. Example of this includes /j ð m a l/, /b i l a l/, /a i ʃ a/, /s a d i y a/ etc. Another trend is to assign a name comprising of two words with different meanings but jointly giving a separate meaning and significance. Example of this pattern is /ʃ ð h j ð h a n/, /f ð k h r e a l ð m/, /n u r j ð h ð n/, /n u r u l s ð h ð r/ etc. This was analyzed to figure out any particular relationship between the nicknaming patterns of both the Naming conventions.

4.3 Syllabifications and Consonant Vowel Behavior

Several important features were taken into account and checking the behavior of those features comprises the major portion of the analysis. One of the important features was the influence of western languages like English on them. Taking one or more than one possible nickname of the person and

analyzing them separately tackled this scenario. All the nicknames phonetically having the Urdu influence were considered and analyzed separately. While other conventions and data influenced by other factors was judged separately. Separate analysis was required to form some rule or to figure out some convention used to form nicknames. To find out any specific behavior and to separate any uniqueness, certain syllabification rules were applied (Gold smith, 1990, p.103). Besides moraic analysis (Dona Jo Napoli, 1996, p.101-2), consonantal and vowel behavior in the nicknames was also observed. Through this activity many important facts were revealed. Behavior of certain vowels was amazing. Especially the vowels were quite effective in the last syllable of the nickname. The consonant vowel clusters of all the names and their nicknames was determined and analyzed. This study reveals quite a few important results that will be discussed later in the next section.

4.4 Geminaton & Stress

Another fact was revealed during the analysis, that gemination also plays an important role in the formation of nicknames. Certain nicknames contain a geminated consonant when the original name goes under a morphological change. Stress is another important phonetic behavior that is important in phonetic outcomes of a word and other words derived from that word. (Donna Jo Napoli, 1996, p.113) Nicknames were also analyzed from Stress point of view.

4.5 Manners and Place of Articulation

Manner of articulation and place of articulation are important factors involved in phonetic representation of a word. They were also considered so as to find out that how a nickname is developed from a name? Is there any concept of articulatory effort involved in forming nicknames? Does the formants play any role in formation of a nickname? To establish this thought a little experiment was done, which comprises of recording few nicknames and checking their formant patterns. Formant patterns of the ending vowels were also checked.

4.6 Phonetic and Phonological Constraints

In every language there are some constraints and some rules that are followed. Therefore it was also necessary to check out that if the phonetics of a name affects the phonology of a nickname or if the phonology of the name affects the phonetics of a nickname.

4.7 Influence of Pakistani Languages

There were certain problems that occurred while proceeding with this activity. Pakistan is divided into four provinces having their own separate languages such as Punjabi, Sindhi, Balochi and Pushto, while having Urdu as a national language. Therefore this fact cannot be omitted that different speakers of different languages also influence words of Urdu. The phonetic content of the names and nicknames differ as different speakers speak it. This further determines that there are names of people, which might be having the same phonemic content in Urdu but a different phonetic content. Using an Arabic phonemic convention of “Airaabs” solved this problem. There are four airaabs, “zair”, “zabar”, “paish” and “shadd”. First three of them act as a short vowels and the last one is used for gemination. Most of the data collected for the analysis was taken from the people who are from the Punjabi origin. There is data representing other origins but Punjabi is pretty dominating. An example of this is the name */s ð h ð r/*. This word is also spoken as */sehðr/*. In Urdu both the words have same spellings or phonemic content, but this is distinguished by using a “zabar” and “zair”. There is no need to go deep into this Arabic convention because when the names are transcribed in standard IPA convention this problem is removed. It's only used when we have to transcribe the words in Urdu calligraphy.

5. RESULTS

5.1 Analysis of section 4.1

The analysis of data and experiments on the data has revealed several important facts about the nicknames. First of all it has been observed that there does not exist any nickname for the names having a religious background or significance. For example */ð b d u l l ð h /*, */r ð h m a n /*, */ð h m ð d /*, */m u h ð m m ð d /*, */ð b u b ð k ð r /*

and many more like these. This is mainly due to keep the respect and dignity of the religion alive. Apart from this the origin of the words like Arabic, Persian, and Hindi etc. does not play any significant role in phonetic or phonological shaping of a nickname. For example */m u s t i /* could be generated from */m u s t ð f a /*, */a ʃ i /* from */a ɪ ʃ a /*, */j o ʃ i /* from */j ð m ʃ e d /*, */g u k i /* from */g u l r u x /* and */k ð v i /* from */k ð v i t a /*. These nicknames are like the one generated from the Urdu style. The detail of the data is given in Appendix A. Therefore this confirms that Urdu dominates other languages when the nicknames are formed from their words. Apart from this, the increasing importance of English has also affected this domain. Certain nicks are formed which simply promotes the English accent. For example */n æ ʃ /* from */n o ʃ i n /*, */b æ b z /* from */b a b r ð h /*, */r e b i n /* from */r a b i y a /*, */z o n /* from */z u n æ r ð h /*, */j i m z /* from */j ð m i l /* etc. This pattern leads to one conclusion; none of the nicks ends with a vowel. There is always a VCC or a VC cluster in the end and mostly these types of nicknames are single syllable.

5.2 Analysis of section 4.2

Analysis of the second naming convention of forming a name by joining two words together provides us with two facts. First one is that nicknames are always formed from the first part alone or by the composite material taken from both the words. For example: -

/g u l ʃ i / was formed from first part of

/g u l ʃ ð n a r a /

/z æ n i / was formed from first part of

/z æ n u l a b ð d i n /

/n u r i / was formed from the first part of

/n u r u l s ð h ð r /

/j h i ʃ ŋ a / was formed from both the parts of */j ð h a ʃ ŋ g i r /*

/m ð g g a / was formed from both the parts of */a l ð m g i r /*

/m a r o / was formed from both the parts of */m ð h r u x /*

Second fact was that those names whose second part starts with a vowel forms a nickname with the help of only first part of the name, like /gʊlʃi/ is formed from /gʊlʃɔn/ and /ara/ does not have any significance in it. On the other hand both the parts of the names whose second part does not start with a vowel does play role in forming a nickname. There might occur any contradiction due to the fact that data was not enough and these rules are derived from data comprising of 16 words and so far it fully supports the given data.

5.3 Analysis of section 4.3

The vowel consonant behavior of the nicknames showed that most frequently occurring vowel consonant structure found in the nicknames are as follows and there percentage of occurring is also given along:-

| | |
|------------------|-----|
| CVCVV and CVVCVV | 58% |
| VCCVV and VVCVV | 10% |
| CVCCVV | 16% |

Nicknames having geminated consonants 20%

These percentages are calculated from male and female names which totals to 150 names. The statistical analysis shows that mostly the CVCVV and CVVCVV structure is observed in the nicknames. In the case of VCCVV and VVCVV i.e. the names starting from a vowel almost always affects the nicknames. There nicknames mostly start with the vowel like /ʊssu/ from /ʊsmɑn/ and /ɑmo/ from /ɑmnɑ/, but in the case where this rule is not followed is /basu/ from /ɔbbɑs/, /mɑno/ from /emɔn/, /ʃokki/ from /ɔffɑk/. This mostly occurs in these cases due to the stops or in some cases due to /ʃ/. The stops tend to assimilate the vowels, and in cases where there is a /ʃ/ it dominates both the vowel and a stop. This shows the strange and strong behavior of /ʃ/ in the formation of nicknames.

Another key fact found is that whatever is the case the nickname will always have a CVV cluster in the end. All the nicknames based on the Urdu style constitute the nicknames that have a CVV cluster in the end. Moreover moraic analysis determined that out of 150 nicknames 99 % of the nicknames comprises of two syllables. Out

of 150 names only two male names have a three-syllable nickname and no female name comprises of three or more than three syllables. The two male exceptions were /jɔmɑlu/ and /bɔʃira/ from /jɔmɑl/ and /bɔʃir/ respectively. Furthermore all the nicknames having a VVCVV cluster are always generated from a name starting from a long vowel and nicknames having VCCVV originates from a name starting from a short vowel.

5.4 Analysis of section 4.4

Gemination and stress studies also helped in discovering amazing behaviors found in nicknames. Statistical analysis shows that out of 150 students there are 20 % of the nicknames containing a geminated consonant. There structure is always VCCVV or CVCCVV. VCCVV structure occurs in the nicknames because of the fact that those actual names start from a short vowel. Other geminated nicknames starts from a consonant. These geminated consonants are always preceded by a short vowel like /ʊmmi/ from /ʊmæri/, /bɔtto/ from /bɔtu/ etc. It has been observed that gemination always takes place on the consonants, which are stops, fricatives or affricates, and mostly on the stops.

Stress pattern was also analyzed and there was uniqueness found in that pattern which revealed that the last syllable is always stressed. This fully satisfies the rule applicable to entire Urdu language. The rule states that the first heavy syllable from the right gets the primary stress. Number of moras helps in determining the syllable structure. Number of moras attached to the syllables; determine the heavy syllable (Donna Jo Napoli, 1996, 9.101).

5.5 Analysis of section 4.5

Place of articulation and manner of articulation of the sounds were also judged so as to find any of their possible influence on the nicknames. As such there was no particular pattern found as the data was based on sounds occurring from all the places of articulation were from every category of manner of articulation. While this was studied a strange behavior of vowels was observed. Names of males are always changed to a nickname ending with

three vowels /i/, /u/, /a/. Among the total of 150 names and their nicknames the statistical analysis shows that 47% of the nicknames end in /i/, 31% of the nicknames end in /u/ and 22% ends in /a/. On the other end the female names are always changed to the nicknames ending in three vowels /i/, /o/ and /u/. Statistical analysis shows that 47% of the female names end in vowel /i/, 35% of the nicknames end in /o/ and rest of the 20 % in /u/. This shows that all the ending vowels have low F1 and on the other end F2 does not contribute in formulating anything. But one vowel that opposes the fact is /a/. As we all know that /a/ has highest F1 of around 700 HZ. But amazingly those nicknames which are used to call someone, ending with the vowel /a/ is changed to /e/ whose F1 is 400, that is again very small. Clarifying this further, when the nickname is used to name a third person singular who is not in direct communication to the speaker then that nick ends in /a/. For example /ʃid a/ from /rəʃid/ and /fana/ from /fərhān/. On the other end when the nickname is used to call some one who is a second person singular, i.e. the speaker is in direct communication with the person, then the /a/ changes to /e/. Taking forward the previous example, in direct communication /fana/ changes to /fane/ and /ʃid a/ change to /ʃide/.

5.6 Analysis of section 4.6

While pondering over it and analyzing the data few constraints were discovered that are taken care of in new word formation. First of all, more than two consonants cannot come together in a nickname. No nickname was seen with the pattern #CCC#. Moreover if any nickname starts with the long vowel then it will always be of the structure VVCVV. No gemination can occur in this case and no consecutive consonants can come in between two long vowel. This is a phonetic constraint, as the human articulators trained for Urdu cannot produce that sound. There might be other languages in which this is possible.

Another fact observed was that occurrence of two long vowels does not exist in Urdu names or their nicknames. Whenever this sort of scenario occurs one of the vowel is always short. One example was the formation of /joi/ from /jaweriyā/, but later the formant structure confirmed that there the word spoken is /jui/. There might be any contradiction for this but the data analyzed so far justifies this fact. All the data is given in Appendix A.

Analysis also showed that there are very few names whose nickname cannot be found or there could be a possibility that nicknames cannot be formed. Such examples were /ðli/, /kɪr rəðn/, /wəli/, /məsə/ etc. There might be some rule or constraint that affect this possibility but due to shortage of this type of data any conclusion cannot be achieved.

6. DISCUSSION

This detailed study of nicknaming pattern of Urdu has confirmed certain existing facts and revealed many new ones. Nicknames are used to call someone effectively and give a particular uniqueness to it while utilizing least effort. Articulator effort means that, how much work is done by the muscles of the mouth to utter any sound or in this case to pronounce the nicknames. The study has proved that least effort is required to utter the syllable comprising of CVV cluster. Secondly, a word of one syllable is easy to pronounce, like the nicknames with the English influence, for example /næʃ/ from /nəʃin/ and /hʊr/ from /huriyā/. If there is a two syllable nickname like the ones pronounced in Urdu pattern then the easiest ones to pronounce are those having CVCVV or CVVCVV cluster. The number of occurrence of the pattern determines this.

Moreover the occurrence of the ending vowels /i/, /u/, /o/ and /e/ determines that least effort is done while pronouncing the vowels having low F1. An excellent support for this was the conversion of vowel /a/ having the highest F1 to the vowel /e/ when the person is called through his nickname. Therefore F1 plays an important role while assigning a nickname. Refer to section 5.5. F2 does not play any role in this

scenario as the data is scattered all over the ranges of F2.

Another addition to this is seen during the stress studies presented in section 5.4. It clearly shows out of 150 nicknames 99% of the time there are only two syllables and stressed syllable is always the last syllable. This proves the fact that the first syllable is spoken quickly and second requires the effort of putting stress and then the nickname finishes. In this way nicknames are pronounced quickly requiring least muscular movement.

Taking sonority into consideration, we know that vowels are the most sonorant; therefore they always come in the end so that the nickname effectively strikes the auditory mechanism of the listener. See Appendix B to know about different sonority levels.

Hence all these factors leads to the conclusion that nicknames are developed so as to easily call the person with highest effective voicing which compels that person to respond back quickly.

Leading this study of nicknames further, we can devise a possible pattern through which we can devise a rule of forming a nickname. The study on 150 nicknames has revealed that around 71 % of the nicknames start with the same alphabet through which their actual names start. More over in section 5.5 we have determined that the male nicknames always end with /i/, /u/ and /a/ and the female nicknames mostly end in either /i/ or /o/ with a few exceptions of /u/. In addition to that it is seen that the first two consonants from the left in the actual name play an important role in the formation of a nickname most of the time. Out of 150 names 73% of the data obeys this, but there are few constraints like /f a d i/ from /f a h d/, /j o ʃ i/ from /j o m ʃ e d/ etc. In these examples the third consonant is used in the nickname, although this behavior is very rare. Further studies in this domain can also help in figuring out the possible constraints if any, and help in developing a more accurate algorithm for generating a nickname.

6.1 Algorithm of forming the nickname

1. If the name starts with the short vowel then start the nickname with the same short vowel. The first consonant after the short vowel

becomes a geminated consonant in the nick name proceeding the short vowel and end the nickname it with /i/, /u/, or /a/ if it is a male nick name and end the nickname with /i/ or /o/ if it is a female nickname. For Example the generation of /i m m i/ from /i m r a n/ and /ð n n o/ from /ð n i k a/ etc.

2. If the name starts with the long vowel then start the nickname with the same long vowel and assign the first consonant in the position right after the long vowel in the nickname and end the nickname with /i/, /u/, or /a/ if it is a male nick name and end it with /i/ or /o/ if it is a female nickname. For example the generation of /a k i/ from /a k i f/, /a m i/ from /a m i r/, /a ʃ i/ from /a ʃ a/ etc.
3. If the name starts with the consonant then start the nickname with the same consonant and the very next vowel in the actual name. Place the second consonant next to the consonant vowel structure and end the nickname with /i/, /u/, or /a/ if it is a male nickname and end the nickname with /i/ or /o/ if it is a female nickname. An example is the generation of /k a m i/ from /k a m r a n/, /d a n i/ from /d a n i ʃ/, /ʃ a z i/ from /ʃ a z i y a/, /f a t i/ from /f a t i m a/ etc.

Above given algorithm does not work all the time but it has been observed that the first two rules works for 87 % of the time and the data analyzed on that pattern was around 31. The third rule works for 58 % of the time with one constraint, i.e. in the patterns like CVCVV or CVVCVV the vowel in the first syllable is sometimes changed to some other vowel in the nickname. Few possible examples of these are /w ɪ k i/ from /w ɔ k a r/, /j o j i/ from /j a w w a d/ etc. A further study can help in finding out the constraints behind this strange behavior of the vowel, which at the moment is beyond the scope of this paper. This could be a baseline algorithm and generates many possible nicknames out of

one name and can be enhanced by figuring out possible constraints and the behavior of vowel in the first syllable of the nickname, as well as finding out the behavior of geminates occurring in the names starting with the consonant.

7. REFERENCES

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APPENDIX A

This contains the names and nicknames, collected from different people and includes different conventions of forming the names or nicknames.

Males

| Names | Nicknames |
|--------|-----------|
| jōmil | jimi |
| hōmmad | hami |
| ōfzōl | ōfzi |
| umær | ummi |
| wōkar | wiki |
| ımrān | ımmi |
| arıf | urfi |
| zub ær | zubi |
| ziʃan | ʃani |
| | ziʃu |
| akıb | aki |
| muʃtak | muʃi |
| sōklæñ | saki |
| muin | mani |
| ʃuıb | ʃobi |
| kamran | kami |
| kaʃıf | kaʃi |

| | | |
|----------|---------------------|---------------------|
| ʃōkil | ʃiki | |
| amır | ami | |
| daniʃh | dani | |
| ōʃfak | ōʃʃu | |
| | ʃoki | |
| ʃıraz | ʃæri | |
| atıf | ōti | ati |
| fahōd | fadi | |
| jōwwad | joji | |
| juned | juni | |
| jōmʃed | joʃi | |
| akıf | kæfi | aki |
| zakır | zōki | |
| zulfikar | zulfi | |
| jawed | jedi | |
| khōbab | bēbi | |
| nōbil | bōnnu | bıllu |
| ıʃtrak | ıʃʃi | ʃōkku |
| babur | bōbbu | |
| jōmal | jōmalu | |
| ōnwōr | ōnnu | |
| ejaz | ōjju | |
| ıxlak | ıllu | k ^h ıllu |
| majıd | mōjju | |
| sajıd | sōjju | |
| hōsōn | hōssu | |
| husæñ | hōssu | |
| harıs | hasu | |
| ōbbas | basu | |
| basıt | basu | |
| basır | basu | |
| usman | ussu | ʃani |
| sōrmōd | somu | |
| | sōrmi | |
| | fıju | |
| hōfiz | sōllu | |
| sōlman | diku | |
| sōddik | uʃ ^h u | |
| yusōf | bılla | |
| bılal | p ^h ōjja | |
| fōzzōl | ʒıma | |
| wōsim | | |

| | | | | |
|----------------|------------------|---------|--------|-----|
| rǝʃid | ʃida | zǝrinǝh | zǝri | |
| | rǝʃi | kǝlsum | somi | |
| bǝʃir | bǝʃira | nilofǝr | nili | |
| | baʃu | saɪma | sæmi | |
| fǝrrux | fika | sumæra | simi | |
| ǝdnan | dana | rǝzɪva | rǝʃji | |
| rǝfik | fika | huræǝh | huri | hur |
| fǝrhan | fana | faɪzǝh | fɪzi | |
| ǝrǝngzeb | ezi | faɪva | fari | |
| ʃǝhǝngir | ʃhǝga | sǝmǝr | simi | |
| ʃǝhǝhan | sʰǝʃju | zænǝb | zæni | |
| fǝkʰrealǝm | fǝkʰri | fǝrzana | fǝri | |
| alǝmgir | mǝgga | ʃǝwɛɪva | ʃuɪ | |
| janæalǝm | jani | kǝvita | kǝvi | |
| zænulabǝdin | zæni | sǝngita | sǝni | |
| gulfam | gullu | fatɪma | fati | |
| kæsdǝr | - | | fǝtto | |
| wǝli | - | mǝrǝm | momo | |
| ǝmǝr | - | naziɪva | nazo | |
| ǝli | - | ǝnika | ǝnno | |
| | | naziʃ | nazo | |
| Females | | amna | amo | |
| Names | Nicknames | | mano | |
| aɪʃa | aʃi | | mano | |
| | aʃu | æmǝn | ʃano | |
| alɪva | ali | ǝfʃɪn | ʃano | |
| sadɪva | sado | sara | saro | |
| | sadi | rabɪva | рабо | |
| rubina | rubɪ | bɪva | rǝbɪn | |
| vǝnizǝh | vɪnni | ʃǝkɪla | ʃǝkko | |
| ʃazɪa | ʃazi | arfa | ǝffo | |
| nadɪva | dani | | rǝffo | |
| buʃra | buʃi | babrǝh | bǝbbbo | |
| sima | simi | | b æbz | |
| ʃanzǝh | ʃani | sǝba | sǝbbbo | |
| kækǝb | koki | sǝkinǝh | sǝkko | |
| sǝdǝf | sadi | momnǝh | momo | |
| hɪna | hǝni | bǝtul | bǝtto | |
| akfa | aki | zinǝt | zino | |
| | fǝkko | mǝʃǝl | ʃano | |
| pǝrvin | pǝri | | mɪʃi | |
| zeba | zebi | marɪva | maro | |
| zubædǝh | zubi | ʃurɛʃ | soʃu | |

| | | |
|----------------|------|--------|
| maɪra | | maru |
| ɔ̃njum | | ɔ̃jju |
| | | ɔ̃nju |
| mahum | | maku |
| | | mahu |
| hurɪya | | hur |
| surɔ̃ɪya | sur | |
| zunæɔ̃ðh | | zon |
| nəʃɪn | | næʃ |
| jɔ̃hã ara | | jani |
| gulʃɔ̃n ara | | gulʃi |
| mɔ̃ðh rux | | maro |
| gul rux | guki | |
| nur jɔ̃hãn | | nɔ̃jjo |
| nur ʊlsɔ̃ðhɔ̃r | | nuri |
| gul naz | | gulzi |
| kɪrrɔ̃n | | - |
| mɔ̃səl | | - |

APPENDIX B

Formant values of F1 and F2 of vowels are given in Hertz along with their pronunciations.

These values are taken from Donna J.Napoli.

| | | | |
|--------|------|-----|------|
| / i / | beet | 250 | 2150 |
| / u / | boot | 250 | 800 |
| / e / | bail | 400 | 2000 |
| / o / | bone | 400 | 900 |
| / ɛ / | bet | 500 | 1850 |
| / ɐ / | pawn | 550 | 1000 |
| / æ / | bat | 700 | 1700 |
| / a / | past | 700 | 1100 |
| / ɔ̃ / | but | 500 | 1500 |
| / ɪ / | bit | | |
| / ʊ / | put | | |

The sonority level of different categories is given as follows. Highest sonority is on the top.

| | |
|------------|----|
| Vowels | |
| Low | 10 |
| Mid | 9 |
| High | 8 |
| Glides | 7 |
| Liquids | 6 |
| Nasals | 5 |
| Fricatives | 3 |
| Affricates | 2 |
| Stops | 1 |

APPENDIX C

This is the pronunciation guide for the IPA font used in this research study. The vowel convention with there pronunciation is shown in appendix B. Following is the pronunciation guide for the consonants.

| | |
|-------|----------|
| / p / | pay, lip |
| / b / | bed, rub |
| / t / | tal |

This is an Urdu version of /t/ which is a dental stop unlike alveolar stop of English.

| | |
|-------|------|
| / k / | king |
| / d / | dant |

This is an Urdu version of /d/ which is a dental stop unlike alveolar stop of English.

| | |
|-------|--------------|
| / g / | good, dog |
| / f / | fit, if |
| / v / | van, love |
| / s / | soon, bus |
| / z / | zoo |
| / ɣ / | york |
| / ʒ / | cheap, witch |
| / j / | joy, bridge |
| / r / | run |
| / m / | mat ram |
| / n / | not, tin |
| / ŋ / | king |
| / θ / | the |
| / x / | khyber |

ə

¹ The symbol " ɔ̃ " is used as a shwa in this paper.