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V ………….. dne………   *podpis…………….*

Abstract:

This thesis explores ideophones in Hindi. Ideophones are "marked words that depict sensory imagery" (Dingemnase 2011:25). It focuses on four main topics represented by four main sections. (A) It defines ideophone and offers some new perspective on this linguistic phenomenon. (B) It lists some common features of ideophones in Hindi which set them apart from the rest of the vocabulary. (C) This thesis describes first field research of ideophones. Its main goal was to find out whether speakers of Hindi actively use it or not. (D) Last part of this thesis focuses on the most interesting topic connected to ideophones – on their semantics. It is analyzed from the point of view of the Frame Semantics and the new Vivid sensation frame is suggested to capture ideophonic meanings. Important part of this thesis is ideophone list which is first of its kind.

Key words: Ideophones, Frame semantics, Field research, Hindi.

Abstrakt:

Tato diplomová práce si klade za cíl zmapovat ideofony v hindštině. Ideofony jsou „příznaková slova, která zpodobňují smyslové vjemy" (Dingemanse 2011:25). Tato diplomová práce obsahuje 4 hlavní kapitoly. (A) V první části se ideofony definují a nabízí se nová perspektiva na tento jazykový jev. Zároveň se diskutuje jejich vztah s citoslovci. (B) Ve druhé části se uvádí některé společné rysy ideofonů v hindštině, které je oddělují od zbytku slovní zásoby. (C) Třetí kapitola představuje výsledky terénního výzkumu, který se zaměřuje na to, jestli mluvčí hindštiny tato slova skutečně aktivně používají nebo ne. (D) Poslední část se zaměřuje na téma pro ideofony nejzásadnější – na jejich sémantiku. Pro analýzu se využívají nástroje Frame Semantics (rámcové sémantiky). V této kapitole je navržen nový rámec pro zachycení ideofonických významů. Přílohou této magisterské práce je seznam sesbíraných ideofonů, který je první svého druhu.

Klíčová slova: Ideofony, Rámcová sémantika, terénní výzkum, Hindština.

Contents

Notes

If not stated otherwise, examples of Hindi sentences are taken from the corpus, HindMonoCorp (Bojar, Ondřej and Diatka, Vojtěch et al. 2014).

All ideophones in example sentences are written in bold.

For transcription of Hindi data, I used table of phonemes of Hindi from IPA Handbook (International Phonetic association:2007)

For glossing example sentences I used simplified version. Words and phrases are translated in one to one aligned blocks. I used these abbreviations, mainly for postpositions (GEN –genitive, DAT – dative, ABL – ablative, INSTR – instrumental, ERG – ergative, ACC – accusative, EMPH – emphatic words)

1. Introduction

1.1 Outline

This paper has four main sections. The first section examines the term ideophone in general and defines it. The second section offers the reader a short glimpse of what ideophones are like in Hindi and summarizes their essential features. The third section is devoted to the field research carried out in India. The fourth section analyzes ideophone semantics from the point of view of Frame Semantics.

Now I would like to offer the reader a glimpse of ideophones from an English perspective:

Watching the cat walk down the stairs, **zig zag zig zag**, gives me such a feeling of delight… [COCA:2008]

"Zig zag" characterizes a special kind of movement. This semantic domain is quite typical of ideophones – many of them depict crawling, staggering, slithering, etc.

Now, do we want somebody running the CIA that's a **namby pamby**, that is only out to preserve peace [COCA:2008]

"Namby pamby" depicts someone's personality as weak or sentimental. Ideophones not only refer to entities in the outer world; they often refer to inner states and feelings.

1.2 Are there ideophones in Hindi? Are there ideophones on the Indian subcontinent?

Apart from a few very brief mentions scattered around literature (Kachru 2006:127; Abbi 1980:43), ideophones in Hindi remain understudied if not completely neglected. Moreover, the situation with other languages of the Indian subcontinent is nearly the same. However, there are two exceptions: Chevillard's two papers on Tamil ideophones (2004a; 2004b) and Rácová's paper on ideophones in Bengali (Rácová 2014). Unfortunately, Chevillard's only existing papers do not employ any rigid linguistic analytical tools, so I consider them as interesting lists of Tamil ideophones without any proof of their "ideophonehood."

The main goal of this thesis is to test the hypothesis: "There are ideophones in Hindi." If this effort proves fruitful, not only will Hindi be added to the pool of ideophonic languages but the Indian subcontinent will also be added to the ideophone-typology map.

On what grounds do I think that Hindi may contain ideophones? The main clue is found in the intuition of some linguists about special kinds of words, usually characterized as one type of reduplication. Some articles and grammar books list **onomatopoeic[1] reduplication** as one of the morphological processes in Hindi (Emeneau 1969; Montaut 2004: 160; Shukla 2001:148; Smékal 1979: 5-25). What is unusual about this category in Hindi are the observations made by some linguists. Namely, A. Montaut points out that *phonetic units may be evocative of feelings and perceptions rather than strictly iconic sounds...*(2004:160). The traditional view on onomatopoeic words is that they imitate various sounds. And now it seems that this notion of evoking sounds has been extended, according to Hindi. O. Smékal goes even further and claims that:

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[1] I adhere to the definition from the Encyclopedia of Language and Lingusitics which reads as follows: the real world. (Brown 2006:531)

" … not all the actions described by onomatopoeic words have to be connected with sounds and in this sense are not pure ono[matopoeic] words, as we know them from elsewhere. This is a special way of expression, typical for more Indian languages, where various states and feelings are conveyed by the quasi onomatopoeia." (Smékal 1979:6)

Smékal deems the "onomatopoeia" label inappropriate for such a class of words and adds "quasi" to it. This is a very good example of how a wrong label can obscure a labeled entity. Montaut and Smékal are compelled to adjust the notion of onomatopoeia to make it fit into a "weird" class of words that also evoke feelings and states of mind. In the end, they only confuse the reader. Fortunately enough, linguistics offers an elegant solution, based on the concept of the ideophone. In this thesis, I would like to prove or disprove whether, by introducing this concept into Hindi linguistics, we are better able to account for such words.

Smékal considers this "extended onomatopoeia" as something that is typical of Indian languages. In his opinion, other Indian languages also contain similar words. Hopefully, together with Rácová (Bengali) and Chevillard (Tamil) we may shift the current approach away from analyzing such words as onomatopoeic words towards analyzing them as ideophones.

1.3 Definition

In this chapter, I would like to discuss the available cross-linguistic definitions, emphasize important features of ideophones and analyze the relation between ideophones and interjections.[2]

1.3.1 Introduction

Since the term ideophone was coined by Doke, research on ideophones has come a long way. The term ideophone was invented in 1935 and, 80 years on, the current literature is trying to analyze ideophones from a universal typological perspective, drawing on the huge body of literature which has emerged (Dingemanse 2012). The history of the search for a proper definition of ideophone is very well summed up in chapter 2.3 in Dinegamense (2011:29-34). I would like to start with two important issues concerning ideophones in Hindi.

The first issue has to do with the unavailability of a definition for ideophone in Hindi. There has been no research on Hindi ideophones, except for analyses that focus only on onomatopoeic or reduplicated words. Thus, this new field challenges us to prove whether this particular kind of analysis works for Hindi and whether there are such a group of words which can be labeled as ideophones. From the very beginning we need to have some preliminary working concept of what ideophones are. The

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[2] Interjections "express a speaker's current mental state or reaction toward an element in the linguistic or extralinguistic context" (Brown 2006: 743).

applicability of most definitions used for other languages is hindered by a simple fact – they have been created to define language-specific categories (De Jong 2001; Kabuta 2001; Nuckolls 2001). Since there is no language-internal definition of ideophone in Hindi, the best cross-linguistic definition should be chosen. There are two available cross-linguistic definitions which will be discussed below.

The second issue has to do with the nature of the criteria that will be used to delimit ideophones. As already mentioned, a cross-linguistic definition should be used. The raison d'être for such definitions is that they may serve as cross-linguistic comparisons. As the functional-typological approach (e.g. Croft 1990) claims, structural criteria (e.g. morphosyntactic) are insufficient to define any language phenomenon that is cross-linguistically valid. The reason for this is the very high variability of structures occurring in world languages. It is usually more fruitful to use semantic criteria (Croft 1990:13). Not only are semantic criteria more suitable at forming cross-linguistic definitions in general, but they are also crucial for defining ideophones. In fact, it is sometimes complicated to try to find some structural features which would sharply delimit ideophones from the rest of its vocabulary in a single language. As Childs notes: "Belonging to the content end of a content-function continuum, they are semantic rather than syntactic in their orientation." (Childs 2004:180). And it is also the case with Hindi. That is why the definition of ideophone is based mainly on semantic criteria rather than on structural ones, such as the presence of some special affix or reduplicated root, because these are features only of some ideophones in some languages.

1.3.2 Discussion of two cross-linguistic definitions

In the introduction to the volume *Ideophones* (Kilian-Hatz and Erhard Voeltz 2001), the editors sum up the features of ideophones which occurred in contributing papers. The following is a set of features rather than a simple definition of a language phenomenon. They claim that ideophones:

- often have a particular special phonology
- do not entirely fit into normal syntactic patterns
- are highly semantically marked
- are very often used in oral language
- are a universal category
- simulate an event, an emotion, or a perception through language
   (Kilian-Hatz and Erhard Voeltz 2001: 2-3)

This set of features has one disadvantage. It includes many structural features (e.g. phonological, syntactic) which Croft has not found very suitable (see chapter 1.3.1). On the other hand, it includes two important points about the semantic nature of ideophones. They (a) simulate an event, emotion or perception through language and (b) they are highly semantically marked.

The latter point (b) is somewhat complicated because, since the publication of Haspelmath's paper *Against Markedness,* it has become impossible to use this term without further specification (Haspelmath 2006). Authors do not spell out what kind of markedness they have in mind. It is not clear whether "marked" is supposed to mean that it is conceptually difficult or that it specifies a semantic distinction in the Jakobsonian sense. Unfortunately, this makes this definition even less useful.

Nevertheless, the former point (a) seems much more promising. Ideophones are said to simulate some entities through language. It draws on the fact that ideophones are not about describing some entities but more about capturing them. Since this feature of ideophones is really important and simultaneously difficult to understand, let me use a metaphor here. In the case of ideophones, sentences or words are used by its speaker in a similar way as a painter uses paintings. They both use it to express what they want to convey, be it an emotion, perception or event. It is quite obvious that a picture and a sentence are usually different to the captured entity, but they can also be very similar. The Dutch masters tended to capture every single detail of a depicted scene in their photography-like paintings and, as a result, their pictures seem utterly realistic or at least very similar to depicted objects in the real world. We could say that they are representative.

Concerning language, onomatopoeic words (a subclass of ideophones) are similar to realistic paintings. They bear a similar relation between the depicted object and the word form. The word "moo" is, in terms of phonetic resemblance, quite similar to the actual sound it represents. The history of art does not, however, only revolve around the Dutch masters but also includes more stylized pieces of art. For instance, cubistic or abstract paintings resemble depicted objects only to some extent if not at all. The artist offers the audience his view of a depicted entity. It relies more on the viewer's imagination, rather than being representative.

On the subject of language, the word "yum" may be considered similar in this respect, as shown in the following example:

(0)

"Enjoying an amazing whole roasted chicken for two Balsan. **YUM**!" [COCA:2008]

This example comes from the COCA corpus and it is a tweet from a journalist. The writer of this utterance is trying to offer the addressee his stylized view of a depicted entity, namely, his food. There are also other less expressive ways of expressing the same meaning, such as the word "tasty," or a whole sentence, "It tastes so good." But this belongs rather to an analytic layer of language than to an

affecto-imagistic layer.[3] Words such as "yum" involve the addressee's imagination and let him/her experience the taste of roasted chicken in a much more vivid way than the word simple "tasty" does. It evokes to the addressee the scene of eating something delicious. We may conclude that there is usually a descriptive (analytic) as well as a depictive way (afecto-imaginstic) of saying something. Ideophones belong to the latter.

The first cross-linguistic definition offers a fairly good semantic definition of an ideophone. Let us take a look at the second definition to see if it can offer us a different perspective.

"A very good definition of an ideophone was conceived by M.Dingemanse in his thesis where he describes ideophones as **marked words that depict sensory imagery."** (Dingemanse 2011:25)

Let me briefly explain this definition. Dingemanse understands the markedness of ideophones to be structural markedness (reduplication, unusual consonant clusters, etc.). By sensory imagery, he means perceptions from different senses. However, it does not refer to the usual five perceptual domains, namely hearing, vision, taste, touch and taste, but it involves another one connected to interoception. This last domain covers words depicting emotions, feelings and states of mind. Dingemanse encapsulates the advantages of his definition as follows:

"The definition of ideophones employed here is designed to be broad enough to serve as a general cross-linguistic characterization of the ideophonic phenomenon while leaving room for the details to be spelled out for specific languages." (Dingemanse 2011:25)

His definition is broad enough to let anyone who uses it to have some working concept of what ideophones are. That enables a researcher to collect some data from a given language and then to continue to the next stage of specifying peculiarities of ideophones in the language under study. What I consider very satisfying about this definition is its emphasis on semantic criteria. For his definition, the notion of depiction is very important. Ideophones not only refer to some entities as usual words do, but they also depict or imitate them. Dingemanse's definition allows the term "sensory imagery" to stand for a category which covers "events, emotions and perceptions," mentioned in the first cross-linguistic definition. Unlike the first definition, it very clearly spells out what is meant by the term "marked." Dingemanse basically refers to phonological/phonotactic peculiarity, expressive morphology and syntactic aloofness. Among the six criteria of markedness mentioned by Elšík (2006: 15-22), he chooses structural complexity as the main criterion for ideophonic markedness.

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[3]I use these two terms as coined by Kita (1997): One dimension is called the analytic dimension, the dimension of "ordinary semantics," where meaning is represented as a hierarchical structure of decontextualized semantic primitives. The other is called the affecto-imagistic dimension, where meaning is represented in terms of effects and various kinds of imagery (auditory, visual, tactile, motoric, etc.)

Dingemanse has chosen "depict" as a verb to characterize the special mode of representation of ideophones. I consider this rather unfortunate. Although it is not a misleading term for a linguist who is quite familiar with ideophones, it could confuse a reader who knows nothing about this kind of words. On numerous occasions, I have had the opportunity to explain what I work on to the latter group of people. And the word "depict" proved to be problematic in describing what ideophones are. Onomatopoeic words posed no challenge and it was easily understood how a sound could be depicted through a language whose own form is also a sound. But the most interesting feature of ideophones, namely that ideophones also depict perceptions from other senses, proved to be unintelligible. Why is it, they usually asked, that a visual stimulus can be depicted through language when there is no sound involved in original perception? After this it became more difficult to justify this category while referring to depiction. I would like to elaborate on Dingemanse's definition and I would like to depict ideophones somewhat differently by offering a new perspective.

1.3.3 Ideophones as the linguistic expression of sensory imagery closest to original perception

I would like to offer another perspective on ideophones which is not obvious in both discussed definitions and which can hopefully shed more light on this slightly obscure language phenomenon. This perspective can be summarized as follows:

Ideophones are the linguistic expression of sensory imagery closest to original perception

To spell out this definition I use a scale that expresses perceptions of pain:

AAARGH → Ouch → It hurts.
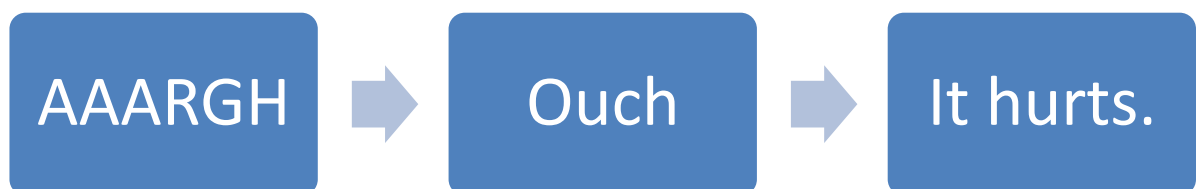
Figure 1.1 Representation of different levels of conventionality of words

On the left pole, there is an unarticulated cry of someone immediately experiencing pain. It is not a part of a language because it is not conventional. Different experiencers would cry out differently. It is an immediate reaction to a stimulus. It is a reflex. On the right pole of the continuum we see the descriptive sentence that illustrates this kind of experience. It is fully conventional and regular. There is no variation when using the verb "hurt," i.e. pronunciation and orthography remains stable. In the middle, there is a word which is conventional to some extent – its orthography is stable (it oscillates between "auch" and "ouch") and we very often encounter it in the corpus. On the other hand, it could also be seen as an immediate reaction to a stimulus of pain, which is conventional to such an extent,

that speakers it may also emit similar sounds. Ideophones are present in the middle of this scale because they are (a) part of a language – they are conventional and stable and (b) semantically close to this immediate expression of perceptions. In Haiman's terms, the middle degree corresponds to Bühler's (1934) *Ausdruckfunktion* (expressive function of language) and the right pole to *Darstellungsfunktion* (representational function of language) (Haiman 1989:156). These two areas on the scale could also be called depictive and descriptive, respectively.

It is important to stress that most ideophones do not belong to such a three-tiered scale. A similar scale would, for instance, apply to delighting in food (unarticulated sound – yummy – it tastes good) or to amusement (laughter – ha ha – it's funny). On the other hand, this scale is usually made up of only two degrees – the middle and the right pole. The word "wishy-washy" thus belongs to the middle degree and its descriptive sister (right pole) is the word "flat."

My contribution to definition of ideophones is somewhere between only highlighting a perspective on ideophones to an individual definition. It draws on Dingemanse's definition in using the term "sensory imagery" and it is inspired by Kunene's thoughts on ideophones. In his article, he defines ideophones as "… the closest linguistic substitute for a non-verbal, physical act" (Kunene 2001: 183). In his view, physical acts are "self-conscious gestures and other imitative acts." These ideas of substitution and closeness serve as an inspiration for this thesis.

1.3.4 Prototypical ideophones

As mentioned above, onomatopoeic words are a very good example of ideophones and this example offers an easy way to explain the whole concept. The similarity between a denoted sound and the sound of a word is quite transparent. It is not the only reason to consider ontomatopoeic words prototypical ideophones though. Observing the organizational patterns of ideophones among many languages, Dingemanse came up with a cross-linguistic implicational hierarchy for ideophonic systems of languages (Dingemanse 2012:9):

SOUND < MOVEMENT < VISUAL PATTERNS < OTHER SENSORY PERCEPTIONS < INNER FEELINGS AND COGNITIVE STATES

It seems that a language can consist of ideophones belonging to other semantic domains only if it has ideophones for sound /onomatopoeic words. Also in this respect, onomatopoeic words seem to be somewhat fundamental. Dingemanse offers one explanation: "SOUND is common and highly salient for humans, and to depict it in speech we can use the simplest kind of semiotic mapping, imagic iconicity, in which sound is depicted with sound." (Dingemanse 2012:9). This also makes clear why there have already been some intuitions that call ideophones onomatopoeic (Smékal 1979; Montaut 2004; Aston 1894; Peck 1886).

1.3.5 Ideophones and interjections – one family or strangers?

The relation between ideophones and interjections is not as clear as it might seem at first glance. Most linguists see some kind of a boundary between these two groups. Ameka discriminates between ideophonic words (kpóó 'quietly') which behave as interjections and non-ideophonic interjections (Ameka 2001). Creissels says that ideophones are clearly distinguishable from interjections because the former participate in the construction of clauses whereas the latter do not (Creissels 2001:76). He quotes Cole's reference grammar of Setswana where both groups are listed in different chapters (Creissels 2001:77). Kilian-Hatz defines ideophone as a "proper word class that is complementary to descriptive (i.e., nouns, verbs, adjectives, and adverbs) on the one hand and to the purely appellative interjections and exclamations on the other hand" (Kilian-Hatz 1999). However, it is not usually well justified.

Dingemanse takes a closer look at this boundary. On the one hand, he enumerates common features; on the other hand, he tries to make them seem to be just superficial. He considers both ways of representing emotions and sensations fundamentally different (Dingemanse 2011:155). I will look at his argumentation in greater detail. He mentions three similarities between ideophones and interjections which are, in his opinion, only superficial:

"(1) both are often phonologically marked and have peculiar word forms, (2) both can constitute utterances on their own, and (3) both are often said to be about emotions and sensations." (Dingemanse 2011: 155).

Let me first discuss points one and three. The first point is further elaborated by stating that "cross-linguistically, interjections allow more outlandish forms than ideophones" (Dingemanse 2011:155). Unfortunately, there is no example or comparison of both groups of words. I consider the notion of outladishness too vague to delimit the two. Such a statement lacks further evidence. For instance, if we take "zig zag"[4] to be an example of an English ideophone, the question arises of whether it is less outlandish an interjection than if we were to say "yum." Since we have no way of how to measure the extent to which such words are outlandish, we cannot really decide. It is up to the native speakers who may disagree. The same applies for the Czech equivalents – "cik cak" (zig zag) and "mňam (mňam)" (yum). As a native speaker of Czech I cannot decide which of these two words is more bizarre or outlandish. Both are, in a way, striking because they employ reduplication which is not that common in Czech, both belong to the spoken, informal and expressive register and both capture some special sensation – the former an impression of a particular way of movement, the latter pleasure triggered by food.

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[4] Bleach (2009:2) considers this word an ideophone, meaning "a line or course that proceeds by sharp turns in alternating directions."

According to Dingemanse, the third point is the most crucial. Both groups of words are about emotions and sensations, but in a different way. Interjections are compared to direct reactions to sensations and Dingemanse cites Goffman (1978:800): "A similar observation was made by Goffman when he pointed out that interjections ("response cries" in his terms) tend to be "a case of exuded expressions, not intentionally sent messages" (Dingemanse 2011:156). In my opinion, this point needs to be revisited. As a native speaker of Czech, I will make use of examples from Czech in this chapter. Consider the following sentence:

(1)
"Mňam, to je báječná   snídaně," pochváli   ji Eli [SYN:2010]
  Yum   it is awesome breakfast complimented her   Eli
"Yum, it's an awesome breakfast," Eli complimented her.

Obviously, the first interpretation is definitely the version presented by Dingemanse. "Mňam" is interpreted as a direct reaction to a sensation of a very good taste. Nevertheless, I would like to offer another alternative which is not less plausible. "Mňam" does not necessarily have to be a direct reaction to an immediate sensation of taste. It could also be an "intentionally sent message." Imagine Eli wanted to flatter her as much as possible. The actual taste of his breakfast could have been quite ordinary or, say, below average. However, he really wanted to compliment her for some reason. By uttering "mňam," he intentionally sent a message which was encapsulated in the second part of the sentence, (1) "it was an awesome breakfast." In this case it is not a direct reaction at all. It is natural to ask here: What is the difference between "mňam" and "to je báječná snídaně?" Superficially they seem very similar in content. The difference lies in the way the same proposition is expressed. The second part of the sentence describes the sensation of Eli, whereas the first interjectional part depicts it. There is a strong connection between an interjection used this way and an ideophone. Consider also the following sentence:

(2)
pak eště udělám nakonec ty   vosí hnízda .. **mňam mňam** . pže   vy to máte rádi [ORAL:2013]
than still make in the end that sweets   yum yum   because you it like
In the end I will bake that sweets .. **yum yum** .. because you like it

This particular usage of "mňam" is not a direct reaction to some immediate sensation at all. The speaker does not taste anything; his mouth is empty. More likely, the speaker tries to evoke a taste of a special kind of sweet in his addressees. There are obviously some occasions when it seems more convenient for a speaker to use an interjection instead of some descriptive clause such as, "which would be very tasty," in our case. This usage of "mňam mňam" seems to be very similar to how ideophones are used according to Dingemanse. It depicts an exquisite taste of a future product made by the speaker. The extract is taken from the oral corpus ORAL2013 and the conversation takes place at home, so it is quite informal. This context is typical of ideophones.

Moreover, whenever such an urge to directly react to a sensation occurs, a speaker is often free to either express it verbally by uttering a word or non-verbally, e.g. by facial expression or by simply concealing it. I would argue that there is a tendency to verbally react, especially when the potential addressee is present. Motivation for such a behaviour is quite straightforward – intention to communicate a sensation and not hide it. Imagine a situation in which a person surrounded by friends in a restaurant is eating overly salty food. After taking the first bite he makes a disgusted face und utters, "yuk!" Of course, it is a direct reaction to an unpleasant taste. However, I would also argue that it is not the only motivation. The potential addressee also plays a very important role as words are usually used to convey a message or information. The act of seeing the speaker's facial expressions is a less propable event than the act of hearing his/her words because we mostly hear everything that is said if it is loud enough; but we do not always maintain eye contact with our interlocutors, especially when eating. Thus, uttering "yuk!" is a better strategy for communicating the speaker's message if the interlocutors are to understand the speaker's sensations. If the speaker was alone he would be less tempted to utter anything because the facial expression would be a primary reaction and there would be no one to hear it. We may deduce that the word "yuk" is not only a direct reaction to a stimulus but also an intentional message.

On top of that, even if interjections were considered mere direct reactions it is not obvious why it should make them different from ideophones. Why not consider interjections a special case of ideophones, namely, immediate depictions? After all, ideophones generally lack this immediacy. Why should this feature make interjections so different? Unfortunately, I have not been able to find a satisfying answer yet. I rather see interjections as a very interesting subclass of ideophones. They are interesting, because of their defining feature - they are immediate reactions to sensations, which are in a way directly connected to bodily experiences. This tight connection still needs to be further investigated.

Finally, the second criterion works better for delimiting ideophones and interjections. Dingemanse is right that "ideophones are often at least paratactically part of another utterance, so they are not as independent as interjections." (Dingemanse 2011:155) It also applies to Czech.

(3)
Stromy v parku jsou vždy sázeny cikcak. [SYN:2010]
Trees in park are always planted zigzag
Trees in park are always planted zigzag.

In this sentence, the word "cikcak" plays the syntactic role of an adverb. Ideophones usually behave like this. They can stand for another word class such as a verb, noun, etc. In contrast, consider this example:

(4)
 "Au!" vyhrkl   reportér. [SYN:2010]
Ouch   blurted reporter
"Ouch!" blurted the reporter.

In this sentence, the expression "au" constitutes an utterance on its own. And this is the case with many other interjections. As this is the only justified difference between interjections and ideophones, I include interjections within the set of ideophones.

1.4 Focus

 The most idiosyncratic type of ideophones are onomatopoeic words. As mentioned elsewhere (see chapter 1.3.4), onomatopoeic words can be taken as the prototypical ideophones, for the relation between a depicted sound and a word itself is quite transparent, or at least more transparent than in the case of other types. Nevertheless, the focus of this paper is not on non-prototypical members of this category. The reasons for this are as follows.

Firstly, onomatopoeic words are generally well known. Even in Standard Average European (SAE) languages, the grammar usually admits that versions of onomatopoeia exist in any given language. Under such circumstances, it would not be striking to find some onomatopoeic words in Hindi. Moreover, the concept of onomatopoeia is so well-known compared to the concept of ideophones, that some Hindi literature labels ideophonic words onomatopoeic (Emeneau 1969; Montaut 2004:160; Smékal 1979:5-25). Therefore, I will instead focus on other types of ideophones whose presence in Hindi would, in fact, be more interesting because they are not very common, especially in SAE languages.

Secondly, it follows from what was mentioned above, that there have already been some attempts to describe and/or classify onomatopoeic words in Hindi. Hence, such efforts would be like trying to bring owls to Athens. Nevertheless, they are included in this analysis because they form a huge part of the ideophonic vocabulary and without them any description would be incomplete.

Also, it is really important to avoid reducing ideophones only to onomatopoeia. Going back to the writings of Doke, the father of the term ideophone, one realizes that by incorrectly labeling, important information may get lost. Doke tried to establish with the term ideophone, which
he borrowed from the phonetician E.W. Scripture, a new grammatical category which was clearly different from *mimic* nouns and *onomatopoeia* — for which he provides separate entries. (Kilian-Hatz 2001:2). My hypothesis differs from Doke's view in one important aspect – onomatopoeic words are considered a prototype of ideophones, whereas he conceives of them as different categories. On the other hand, we share the same emphasis on not mixing onomatopoeia with ideophones.

1.5 Salience of ideophones in Hindi

Ideophonic languages vary according to the extent they contain ideophones. On one pole of the continuum are languages, such as Gbaya, which contains 8000 to 9000 ideophones (Samarin 1979:55). On the other pole there are languages such as Yir-Yoront, which has not much more than 100 recorded ideophones (Alpher 2001). To get some impression of the amount of ideophones in other languages, let me cite Childs:

"Furthermore, ideophones often represent a sizeable proportion of a language's lexicon: ….. 25% of the lexicon in Nupe (R. Blench, personal communication 1988); 2,600 in Zulu (Fivaz 1963, revised upward to over 3,000 in Von Staden 1977). In Kisi a lexicon of 4,000 words contains 363 ideophones. Bohnhoff (1982) finds comparable numbers for Yag Dii: 535 ideophones in a lexicon of 4,244 words." (Childs 2004:179)

The list of ideophones in Hindi contains 577 ideophones. Of course, it is not an exhaustive list. Direct comparison with other languages does not make sense, because even a definition of this elusive language phenomenon differs from language to language.

1.6 Ideophones and other POS

According to literature, ideophones can behave quiet differently with respect to POS systems. Ameka draws an interesting analogy between them and deictic words:

"They are first and foremost a type of words—a lexical class of words—which need not belong to the same grammatical word class in a particular language nor across languages. In this sense they are like deictic words with a particular semantic function but which can fall into different grammatical word classes—nominal, adverb, verb, or adjective etc.—in a particular language." (Ameka 2001:26).

There are some languages in which they do not constitute a separate word class, such as Ewe. In this language, they syntactically fall into any class. Ideophones in Ewe can behave like nominal, adjectival, intensifier, verbal, adverbial and interjectional words (Ameka 2001:29). On the other hand, there are languages which have a separate class of ideophones which can be distinguished by their morphological, syntactic and semantic properties, like Pastaza Quechua (Nuckolls 2001:272). Finally, there are also combinations of the above-mentioned types. The African language Mundang not only has ideophones that belong to other POS (ideophonic nouns, ideophonic adjectives and ideophonic verbs), but also ones that constitute a word class of their own – ideophonic adverbs (Elders 2001).
The situation in Hindi will be described in greater detail in chapter 2.2.

1.7 Ideophones in Hindi

The group of words I am about to describe seems to fit the definition of an ideophone very well. They cover semantic domains mentioned in chapter 1.3.2 and they function in quite a similar way in Hindi – ideophones are language expressions which are closest to their original perceptions (see chapter 1.3.3). They also exhibit some formal features similar to those mentioned in chapter 1.3.2 – they have special phonology and they are structurally marked. The following chapters are based on an assumption that this group of words could be considered ideophones.

2. What do ideophones look like in Hindi?

In this chapter, I build on my hypothesis that this examined group of words are ideophones and I try to describe them from this perspective. The following subchapters may be understood as arguments to support this assumption.

This chapter is based on data from two sources. The first comes from the list of ideophones I have collected so far. This list of ideophones is listed and described in Appendix 1. The second source is the largest currently available corpus of Hindi called HindMonoCorp, containing 786,602,842 tokens in 44,486,496 sentences (Bojar and Diatka et al. 2014). Before describing the corpus let me say why I think this corpus is of particular importance. As most ideophonic languages (except for Japanese) do not have large electronic resources such as corpora, Hindi offers us the interesting possibility of studying this phenomenon through many examples occurring in natural texts. Ideophones are usually to be found in spoken language, yet large corpora of written texts contain a non-negligible amount of their occurrences. HindMonoCorp consists of texts which have been collected from the web. Given this method of collecting data, news websites and blogs chiefly make up the content. The corpus has been carefully de-duplicated, so that the same entry does not appear twice or more. For more information, please see Bojar and Diatka et al. 2014.

2.0 Overview of ideophones

I would like to give the reader a small sample of what ideophones look like. The preceding chapters have concerned the definition of this elusive language phenomenon. Sometimes, the best way to understand it is with a concrete example:

(5)
gʰaɽiː pahanne ke baːd bʰiː tʰoɽiː ʃaɾm ɔr **d͡ʒɪd͡ʒɑk** mahasuːs ho sakatiː hɛ
watch wearing GEN after still a bit ashamed and **hesitation** felt   could be

Despite wearing a watch you could feel ashamed or **hesitant**.

The ideophone "**d͡ʒɪd͡ʒɑk**" depicts how the experiencer who hesitates feels. Here is another example:

(6)

mɑndɪr mẽ ek **d͡ʒɪlmɪlɑːtɑː** diːpak tʰɑː

temple   in   one   **glittering**   lamp   was

There was one **glittering** lamp in the temple.

The ideophone "**d͡ʒɪlmɪlɑːtɑː**" helps the hearer to evoke the whole scene and the special way the light is emitted, namely, how the light of the lamp flickers in the wind. It focuses the hearer's attention towards the perception of the light.

(7)

ɔr tiːkʰɑː **t͡ʃɑʈpɑʈɑː** svɑːdɪʃʈ bʰod͡ʒan pakɑː sakta hɛ

and   spicy   **heavily spiced**   tasty   meal   cook   can

And he can cook spicy and **heavily spiced** meals.

The ideophone "**t͡ʃɑʈpɑʈɑː**" evokes a special taste of Indian food which needs to be described with more words in other languages. Ideophones sometimes let speakers express quite complicated concepts in just one word. This ideophone conveys a combination of spiciness and a mixture of aromatic herbs.

(8)

vɑrkʃɑːp mẽ sɪlɑːi kiː do mɑʃiːnõ kiː **kʰɑʈpaʈ** gũːd͡ʒti rahti

workshop   in   sewing   GEN   two   machines   GEN   **growling**   resounds

In the workshop, two sewing machines were **growling**.

This ideophone needs no further explanation because it functions as a usual onomatopoeic word which is well-known to practically all languages. Language imitation of actual sound conjures the sound itself.

(9)

ʈiːm ko pʰɑːɪnal mẽ pɑrɑːst kar bʰɑːrat **pʰɑʈɑːpʰɑʈ** krɪkeʈ kɑː t͡ʃɛmpɪjan ban gajɑː tʰɑː

team   DAT   final round   in   beaten up   India   **at once**   cricket   GEN   champion   became

India had beaten the team and **immediately** became champions.

This ideophone lets the hearer experience the briskness and speed at which the event happened.

2.1 Reduplication

Since I have not yet found any particular phonological feature shared by all ideophones, I will skip the first layer of linguistic analysis and start with word forms. I do not include this chapter in morphology because reduplication occurring in Hindi ideophones is rather inherent to them – it is not a morphological process that changes the meaning of a word by reduplicating it.

Reduplication seems to be one of the most salient features of ideophones. In many ideophonic languages, at least a part of the ideophonic repertoire is reduplicated. As Kilian-Hatz puts it:

"They often display very little or exceptional morphology (e.g. reduplication)." (Kilian-Hatz 2001: 167)

Even though reduplication in Balto-Finnic languages is very rare, it occurs in onomatopoeic and ideophonic words (Mikone 2001:229). Amha differentiates two groups of ideophones in Wolaitta and it is idiosyncratic for the first group that it involves reduplication (Amha 2001:50). There are ideophones either in single or in reduplicated form in Didinga (De Jong 2001: 123). Elders include reduplication as a defining feature of ideophones in Mundang (Elders 2001:98). All parts of speech investigated by Kabutta (in nouns, adverbs and verbs) contain reduplicated ideophones (Kabutta 2001).

The list of Hindi ideophones in Appendix 1 might be a bit biased in favor of reduplication. As one of the sources is my own excerpts, I have tended to notice more reduplicated forms than simple ones. The same applies to another source, which is Smékal's list (1979). Words included in it are all reduplicated. Two out of four sources are biased in this respect.

Next, some tables with proportions of different kinds of reduplication in the list of ideophones from Appendix 1 are presented. It must be borne in mind that these percentages are not fully representative, since they represent only a small subset of ideophones, which have been collected for this dissertation. Hopefully, they capture some general tendencies.

Full reduplication

The most usual kind of reduplication is a full reduplication that repeats some part of a word. Full reduplication follows these patterns:

AA   sɑɾsɑɾ (hissing)

AXA   sɑɾɑːsɑɾ (totally)

AAY   t͡ʃɑʈbɑʈɪjɑː (chattering)

Letters A stand for a sequence of sounds of random length which is reduplicated and Y stands for some sound or sequence of sounds which is not reduplicated. X is usually only one sound - ɑː .

Partial reduplication

Another kind of reduplication typical of ideophones in Hindi is partial reduplication. It follows these patterns:

ABCB   latʰpatʰ (soaked)

ABCBY   kʊlbʊlɑːhɑʈ (wriggling)

The letter B stands for reduplicated sequence of sounds. The letter A and C are different sounds or sequence of sounds at the beginning of both reduplicated parts. The letter Y stands for any sequence of sounds, usually suffix.

All forms

To get a broader view of all ideophones, it is interesting to see the proportion of different kinds of reduplicated forms and non-reduplicated forms listed in Appendix 1.

Form	Example	%
full reduplication	sɑrsɑr (hissing)	69
partial reduplication	hɑkkɑːbɑkkɑː (confuesd)	19
non-reduplicated	tɑɽɑp (writhing)	12
		total 100%

Table 2.1 Percentage of occurrences of different word forms

89 % of collected ideophones are either fully or partially reduplicated. Even though the ideophone list might be biased, reduplication seems to be a rather salient feature of ideophones in Hindi and it conforms to what we know about other ideophonic languages.

2.2 Part of speech classification

Hindi seems to have two kinds of ideophones. Firstly, there are *ideophonic nouns, adjectives and verbs* which are fully-fledged members of other word classes and which are morphologically very similar to words belonging to a given word class. They behave morphologically like a class they belong to. Their stems may also appear alone usually in adjectival or adverbial use.

The ideohpone "d͡ʒɪlmɪl" with the nominal suffix "ɑːhɑʈ":

(10)
duːsriː or   diːpoː kiː d͡ʒɪlmɪlɑːhɑʈ
other   direction lamps GEN **glitter**
And in the other direction there was a **glitter** of lamps.

The bare ideophone "d͡ʒɪlmɪl" with the adjectival meaning:

(11)

d͡ʒɪlmɪl pɾaka:ʃ ki: a:bʰa: ma:nas paʈal paɾ t͡ʃa: d͡ʒa:ti: hɛ
glitter   light   GEN gloss   mind   layer   on   is spreading
Glittering light is spreading over the layers of the mind.

Secondly, there are *bare ideophones* in Hindi. Their defining morphological property is that they are indeclinable. They do not take any inflectional affixes and they usually appear as noun modifiers or adverbials. Most of them cannot take suffixes of other parts of speech. Let us take a look at some examples:

A. Ideophonic verb

(12)

log   meri: pi:ʈʰ **tʰaptʰapa:te** tʰe
People   my   back   **were tapping**
People were **tapping** my back with praise

The ideophone in this sentence appears as a participial part of the predicate. The imperfective participle in Hindi is derived from a verbal root with suffixes inflecting according to gender and number (-ta: : m.sg -te : m.pl -ti: : f.sg+f.pl). Thus, the verb "**tʰaptʰapa:na:**" derives its impf. participle from the root "**tʰaptʰapa:**" with respective suffixes - tʰaptʰapa:ta:, tʰaptʰapa:te and tʰaptʰapa:ti: .

B. Ideophonic adjective

(13)

uske t͡ʃehre par laga: **t͡ʃipt͡ʃipa:** kri:m
her   face   on   spread **greasy**   cream
a **greasy** cream which was spread over her face

The adjective t͡ʃipt͡ʃipa: occurs in two other forms following an adjectival paradigm - t͡ʃipt͡ʃipe, t͡ʃipt͡ʃipi: . Adjectives in Hindi inflect for gender and number (-a: : m.sg -e :m.pl -i: :f.sg+f.pl).

C.ideophonic noun

(14)

ba:ɾɪʃ ke dɔra:n ba:dalõ ki: **gaɾgaɾa:haʈ** se maka:nõ mẽ kampan hʊa:
rain   simultanously louds   GEN **rumble**   ABL houses   in   shaking   was
During the rain, something was shaking in the houses because of thunder's **rubmling**.

D.bare ideophone

(15)

paṛha:i: karne ka: d͡ʒo   sapna: hai vah ša:di: ke ba:d t͡ʃu:rt͡ʃu:r   ho d͡ʒa:jega:
learning doig GEN which dream is that marriage after **destroyed**   will become
after the marriage her dream of studying (at the university) will be **destroyed**

(16)
amma: t͡ʃupt͡ʃa:p suni: rahi: tʰi:
mother **silently**   was   listening
mother was listening **silently**

These two ideophones have no other forms and cannot inflect. To conclude, I present a table with frequency of above mentioned parts of speech in ideophone list:

POS	amount	%
ideophonic verb	110	19
ideophonic adjective	79	13,7
ideophonic noun	119	20,6
bare ideophone	270	46,7
total	578	100

Table 2.2 Amount of ideophones according to POS

2.3 Morphological feature - suffix -a:haṭ

The Hindi suffix –*a:haṭ* is traditionally considered as derivative, deriving verbal nouns from verbal roots (BEAMES 1879), abstract nouns from pure onomatopoeic words (Shukla 2001), and abstract nouns from adjectives (HOERNLÉ 1880). In my opinion, this suffix also derives verbal nouns from bare ideophonic roots. I would expand on Shukla's definition and claim that this suffix derives abstract nouns not only from onomatopoeic words but also from other ideophonic roots which have nothing to do with onomatopoeia. I am inclined to think that -a:haṭ is not exclusive but idiosyncratic for ideophones. In general, ideophones tend to occur with this suffix very often.

Two examples of such a derivation are:

(17)
gumsum   bacce
self-absorbed   children
self-absorbed children

(18)
Bhi:ṛ ki: **gumsuma:**ha:ṭ mẽ
Crowd GEN **self-absorbedness**   in
In the crowd's **self-absorbedness**

(19)

Kutʃ der ba:d **gadgad** bʰa:v se usne kaha:

Little moment after **happy** feeling INSTR he said

After a moment, he said in a **happy** mood:

(20)

Sunkar maĩ ʈʰi:k se apni: **gadgada:haʈ** na prakaʈ kar saka:

Hearing I well INSTR his **happiness** no could express

When I heard that, I couldn't express my **happiness** well enough.

2.4 Syntax

As has been mentioned above (see chapter 2.2), Hindi contains ideophones which are fully integrated into other parts of speech, and also those which seem to be set apart. These two kinds of ideophones differ morphologically (see chapter 2.2) and also syntactically from each other. The former class of ideophones is not that interesting, because it seems to conform to the rules of a given part of speech. However it is not the case with the latter group which will be further investigated.

2.4.1 Syntactic ambiguity

Without context, it is not clear which function any given ideophone fulfils in a sentence. Usually they can play a syntactic role as an adverbial and sometimes also as a noun modifier. Consider the following examples:

(21)

d͡ʒɪlmɪl pɾaka:ʃ ki: a:bʰa: ma:nas paʈal par t͡ʃa: d͡ʒa:ti: hɛ

glitter light GEN gloss mind layer on is spreading

Glittering light was spreading over the layers of the mind.

This bare ideophone is syntactically used as a noun modifier.

(22)

lekɪn ɾa:d͡ʒa: ne kʊt͡ʃ nahi: kaha: ɔr **t͡ʃʊpt͡ʃa:p** mantɾi: ke sa:tʰ du:sɾe ba:g mẽ t͡ʃale gaje

but king ERG nothing said and **silently/silent** ministr with second garden in went

But the king said nothing and went **silently** to the other garden with the minister.

This bare ideophone is syntactically used as an adverbial. Sometimes the function of an ideophone is not clear even in the context of a sentence:

(23)

tʊm bʊfe mẽ ʃa:mɪl ho **pʰaʈa:pʰaʈ** bʰod͡ʒan kar sakte ho

you buffet in join **fast/quikly** meal do can

You can join the buffet and eat fast food/You can join the buffet and **quickly** eat food.

Here it is not clear whether the ideophone "pʰaʈa:pʰaʈ" is modifying the noun "bʰod͡ʒan" as an

adjective, or if the adverbial phrase is modifying the verb "kar sakte ho" as an adverb.

Bare ideophones tend to appear as either noun modifiers or adverbials in sentences. Their more usual function is that of an adverbial.

2.4.2 The nominal part of verbo-nominal predicates

Hindi has many verbo-nominal predicates which consist predominantly of a noun or an adjective as a nominal part and of the verbs hona: (to be) and karna: (to do). Hindi usually morphologically marks transitivity of verbs (INTR - kaʈna: - to cut yourself; TRANS - ka:ʈna: –to cut something). The same applies to verbo-nominal predicates, where transitivity is marked either by the verb hona: (INTRANS) or by the verb karna: (TRANS). For instance, the adjective "band"(closed) could be used intransitively as "band hona:" meaning to be closed or transitively as "band karna:" meaning to close:

(24)
du:ka:n band hɜ
shop   closed is
The shop is closed.

(25)
du:ka:nda:r du:ka:n ko band kɪja:
shopkeeper   shop   ACC closed made.
The shopkeeper closed the shop.

Nearly all bare ideophones occur with hona:. Some of them also occur with karna:. However, it is not clear why this is the case. It could be caused by non-representativeness of the corpus.

The bare ideophone loʈpoʈ is found in the corpus with both verbs:

hona: (here in the form of "ho" as a simple stem):

(26)
kʰʊʃi: ke   ka:raṇ zami:n mẽ **loʈpoʈ** ho gaja:
happiness GEN cause   ground   on   **roll**   were
There were **rolls** on the ground because of happiness.

In this sentence, there is effectively no agent, which is not that exceptional in Hindi. Intransitive verbo-nominal predicates (those with hona:) are used in such cases where the agent is not important for an action or for a speaker. They demote the agent in a similar way to the passive voice. This

second sentence has an explicit agent which is the subject of a sentence. The ideophone "loʈpoʈ" moves from the subject position in sentence number (26) to the object position:

kɑɾnɑː (here in the form of "kar" as a simple stem):

(27)
sʊd͡ʒʰɑːv ne to   hãsɑː hãsɑːkar **loʈpoʈ** kɑr diyɑː
Sujhav   ERG EMPH smiling smiling   **roll**   did
Sujhav was smiling and **rolling** on the ground.

3. Field research

This chapter describes the pilot research I conducted on ideophones in Hindi in February 2013 in India. Elicitation task was recorded on the Marantz PMD620 voice recorder and later transcribed and analyzed. This dissertation contains only analysis of the first part.

I tried to be very careful about not giving away the object of the research. It is quite obvious that elicitation is not a way to study naturally occurring language. Nevertheless, it is still worth doing because it may point to some tendencies in language use, especially when naturally occurring words are not the object of study. It is very important in this kind of research that subjects are not aware of what they are supposed to say or what the researcher is interested in. If they are aware, the research results can be biased with respect to the frequency of ideophones. I approached subjects as a student of Hindi who wanted to improve his knowledge of the language.

I approached subjects quite randomly. I recruited them usually from hotel or restaurant staff or from randomly met people. They had to be native speakers of Hindi or of its dialect, e.g. Rajasthani. Surely, there might be some variation in ideophone usage among speakers of different dialects, but it is not important for me at this stage of the research.

Since this is the first elicitation research on Hindi ideophones, it can be considered more of a pilot study than a thorough research of this phenomenon. I used some methods of elicitation pioneered by M. Dingemanse on the Siwu language. Although it worked for Siwu, which is the first and currently the only language researched in this way, I had no guarantee it would work in the same way for Hindi. I also faced other difficulties which are described below.

3.1. Ideophone elicitation task

In this task, the main goal is to answer the research question posed well by Tufvesson: "To what extent are expressives used in elicitation situations?" (2007:54). She considers ideophones and expressives to refer to the same type of words (2007:53). Usually, speakers have more than one way of communicating their perceptions. This elicitation task makes clear whether subjects have ideophones in their active vocabulary and to what extent they use them.

3.1.1 Inspiration

Since it is hypothesized that a special class of words in Hindi could be thought of as ideophones, it still needs to be found out whether such words are used by speakers.

Dingemanse carried out this kind of experiment, as described in Dingemanse (2011:chapters 8, 9, 10) and in Majid (2007). This method was originally meant to explore how a given language encodes perception. To investigate the role of ideophones in the linguistic coding of perceptual domains, Dingemanse used a language kit developed within the framework of the Language of Perception Project of the Language and Cognition Group at the MPI for Psycholinguistics. This kit contains six kinds of stimuli: (1) a texture booklet with ten different textures; (2) a taste kit with the five basic tastes (sweet, sour, bitter, salt, umami); (3) a color booklet consisting of 80 Munsell-validated color chips; (4) a booklet with 20 basic shapes; (5) a scratch-and-sniff booklet for smell; and (6) a set of 10 sound pairs varying in tempo, loudness and amplitude (Dingemanse 2011:189). Speakers were asked to label perceptions when presented with a stimulus. Dingemanse used it to find out whether speakers of Siwu actually use ideophones while trying to describe what they perceive.

3.1.2 Actual design of the research

Since I was not allowed to use the same kit that Dingemanse used, I had to create one myself. It consisted of (1) a set of textures; (2) a set of colors; (3) a set of sounds; (4) a set of videos. I adjusted the original stimuli kit to better serve my purposes. The taste kit, basic shapes and a scratch-and-sniff booklet were skipped. Basic shapes were omitted because, after a short pilot testing[5] before the actual research, it proved useless – subjects tended to use either English words or lexical loans from Sanskrit which are part of a technical, not an ideophonic vocabulary. The other two groups of omitted stimuli were found to be too difficult to evoke on each occasion with each subject. I did not know how to keep the same taste and smell stimulus for each subject and which substances to use to evoke such perceptions. On the other hand, I added video stimuli because, unlike shapes, they appeared to be good sources of ideophones.

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[5] This brief pilot testing was conducted before I went to India. Two Indians living in Prague took part. I went through both tasks with them. After analyzing the data I adjusted my stimuli set.

(1) Set of textures

I collected a set of thirteen different textures to elicit words connected to tactile sensations. I tried to include very diverse textures. This set contained:

1. oak veneer
2. leather
3. a flat piece of metal
4. a piece of rattan (furniture material)
5. a soft cloth
6. plastic
7. a thorny texture
8. a dense net
9. glass
10. velvet
11. a footback
12. a bouncy ball
13. soft gloves
14. a fluffy teddy bear

Subjects were asked to take each item one by one in their hands, touch them carefully and name the surface. The question associated with this sensory domain was:

ɑːp abʰiː taɾah taɾah kiː satah t͡ʃuẽge. ɑːp ko je satah kɛsiː lagtiː hɛː?

Now, you will touch different surfaces. How do you find them?

(2) Set of colors

I have chosen 21 different colors from all fields of a spectrum which were printed on small paper squares. It contained these colors:

1. white
2. sunny yellow
3. orange
4. red
5. pink
6. violet
7. light blue
8. light green

9. brown
10. very light green
11. black
12. dark red
13. light red
14. dark pink
15. dark orange
16. dark violet
17. very dark violet
18. dark blue
19. turquoise
20. dark turquoise
21. dark green

Subjects were presented with colored chips and were asked to name the color. The question associated with this sensory domain was:

ɑːp abʰiː ɾaŋg ke nɑmuːne dekʰẽge. ɑːp ko je kɛse lɑgtɑː hɛ ?

Now, I will show you some color samples. How do you find them?

(3) Set of sounds

I used the set of sounds recorded by Tufvesson. There are 22 sound clips ranging from 2 to 6 seconds. "The clips are recordings of "nature" sounds, capturing various sounds of water, mud and thunder" (Tufvesson 2007). This set contained sounds of:

1. Light rain
2. Heavy rain
3. Rain curtain
4. Single rain drops
5. Large waterfall 1
6. Large waterfall 2
7. ~~Small waterfall 1~~
8. ~~Small waterfall 2~~
9. Water stream
10. Single drop in water
11. Light water splash
12. Heavy water splash
13. Footstep in water

14. Small bubbles
15. Large bubbles
16. Boiling water
17. Large mud bubbles
18. Footstep in mud 1
19. Footstep in mud 2
20. Close thunder 1
21. Close thunder 2
22. Distant thunder

In the end, I did not use sound clips number 7 and 8. Subjects listened to recorded sounds and were asked to name the sound after each one. The question associated with this sensory domain was:

ɑːp abʰiː tarah tarah kiː aːʋaːzẽ sʊnẽge. je kɪs tarah kiː aːʋaːz hɛ?

Now, you will hear different sounds. What kind of a sound is it?

(4) Set of videos

Nine videos were randomly chosen from YouTube. I searched for strange and peculiar kinds of movements of humans or animals. I focused on this category because at the time of this first field research there were many such ideophones in my database based on manual excerpts (see Appendix 1 for more details). In the end, nine videos were included in the research. Their length ranges from 4 to 11 seconds. Videos depict:

1. A drunken man trying to build a tent
2. A slithering snake
3. A snowboarder turning in the air
4. A plane trying to take off
5. A staggering elephant
6. An ostrich trying to stand still
7. A falling monkey
8. John Cleese's famous silly walk from Monty Python's Flying Circus
9. Speed boat racing

Subjects watched videos and were asked to say what they saw. The question associated with this sensory domain was:

ɑːp mud͡ʒʰe bataːɪe ɑːp kjaː dekʰte hɛ? ʋo kɪs tarah t͡ʃal rahaː hɛ?

Tell me, what you see. In what way is it moving?

3.1.3 Possible problems

Ideophones are said to occur predominantly in the domain of spoken language (e.g. Alpher 2001:9; Kilian-Hatz 2001:155; Kunene 2001:189). It could be argued that this method of elicitation does not capture ideophones in natural speech. By imposing such artificial conditions on a speaker it is impossible to elicit authentic ideophones. However, this kind of criticism misses the point of Dingemanse's elicitation method. Its primary aim is not to elicit ideophones in their natural environment. It is the initial stage in ideophone research of a given language which, of course, should be followed by a thorough analysis. Dingemanse's method uncovers an unknown terrain and tells a researcher whether it is worth continuing with a more detailed analysis of ideophones. In this sense it could be viewed as a pilot research. By simply asking subjects to label different perceptions, a researcher can tell only whether some ideophones are used actively or whether a given language uses other means of expressing such perceptions.

The second problem has to do with how I changed the original language kit used by the Max Planck Institute for Psycholinguistics. My omissions of some stimuli and my addition of one could be viewed as arbitrary. I do not consider it that important on which stimuli the presence of ideophones is tested in the first stage of the research.

3.1.4   Analysis of the data

Before analyzing the data I would like to make a few general remarks about the analysis.

Below, I mention in how many percent of cases ideophones appeared. This method of elicitation does not indicate when speakers of Hindi use ideophones. Each stimulus could have been commented on ideophonically or non-ideophonically. Choosing one option over another might be influenced by memory, the availability of ideophones in the mental dictionary, etc. It simply maps whether some users use it on given occasions. It could never be generalized for all communications in Hindi.

After analyzing a larger portion of the data I noticed one strong tendency. I approached my subject as a student wanting to learn Hindi. Subjects tended to overuse English words because I was obviously a foreigner and presenting myself as a student of Hindi might have implied I was not good at understanding. I realized this as I was analyzing subject two, who answered a phone call during our session. He was talking to a friend and he switched to Hindi and used hardly any English words. After finishing the call, he turned back to me and started overusing English words again. This might have influenced elicitation since I had elicited many English words. In the future, it might be better to approach subjects in a different way. It would be better to have a native speaker of Hindi approach the subjects and talk to them in their mother tongue. Presumably, the subjects would then not overuse English as much.

Lastly, I also noticed that subjects sometimes tended to explain stimuli by simply describing instead of uttering ideophones. It occurred to me after I analyzed one transcript where my subject was presented

with the sound of a splash. He said that it seemed like a stone had been thrown into the water. Such an answer is a simple description of an action leading to such a sound. I asked an additional question inquiring whether there was a word for such a sound. Only after this additional question was I able to elicit the ideophone – my subject used the Hindi word for splash.

It must be borne in mind that the below-mentioned percentages of ideophone occurrences are not directly comparable. Each part was answered by a different number of subjects. This was caused by different conditions under which the elicitation interview was carried out in each case. As I was recruiting subjects in a random way, I was quite dependent on their time tables and also on the place where we conducted the recording. For instance, some recordings took place outside on a noisy street where it was impossible to do the audio part.

3.1.4.1 Textures

There were seven subjects describing textures. Ideophones appeared in 35,7 % of possible cases (see the table 3.1). Five ideophones were elicited. There was one subject who used no ideophone during the whole elicitation process. Not a single ideophone was elicited for the footback.

In the following table, ideophones are listed in basic form, made up of an adjective with a male gender-singular suffix:

ideophone	translation	num. of occ.
kʰʊrdʊrɑː	rough	11
mʊlɑːjɑm	smooth	10
t͡ʃɪknɑː	flat, polished	8
gʊlgʊlɑː	smooth, soft, fragile	3
gʊdgʊdɑː	soft, smooth, plump	2
total		34

Table 3.1 Number of occurrences of tactile ideophones

3.1.4.2 Colors

9 subjects participated in this part of the elicitation task. It was quite striking that I managed to elicit no ideophone. The domain of color seems to be utterly ideophone-free. I certainly did not expect any domain to have no ideophones at all. I simply might not have been able to elicit them but it seems improbable in comparison with other domains. It is not the only domain without ideophones – the domain of basic shapes (used in pilot research in Prague) did not reveal any ideophones either.

Speakers sometimes used substitution words, such as ɑːsmɑːniː (sky-like), t͡ʃoklɪtiː (chocolate-like) and kokɑ kolɑ (coca cola-like). Many responses were realized in English at first and subsequently

amended to Hindi through speaker initiated repair because they were asked to do so from the very beginning.

3.1.4.3 Audio

8 subjects participated in this part of the elicitation task. Ideophones appeared in 20 % of possible cases. Even though it is slightly less than in the case of the other domains, the elicited list is more variable (see the table 3.2). Altogether, 15 ideophones were elicited. Every subject used at least one ideophone. There were no ideophones uttered by the speakers after listening to sounds that included a large waterfall, footsteps in water and boiling water.

More than in the other tasks, many subjects tended just to describe an action which leads to such a noise. After receiving some answers I occasionally asked whether there was a name for such a sound in Hindi. This might be the reason why I elicited less ideophones than in other domains, despite the fact that Hindi has more audio ideophones than ideophones belonging to other domains.[6] After going through the data, I realized that it might have been helpful to let subjects know the domain that was being elicited. Despite the fact that only naturally occurring sounds were included in this task, some subjects described some sounds as being like a radio or an untuned television, as a bomb or sounds of an ongoing war.

In the following table, ideophones are listed in basic forms made up of either a bare ideophone or, in the case of verbs, an infinitive and in the case of adjectives and nouns it is male singular form:

Ideophone	Translation	Num. of occ.
t͡ʃamakna:	to glow	1
kaɽakna:	to crack, to rumble	1
bʊlbʊla:	bubble	6
gaɽgaɽa:haʈ	roaring	1
ɾɪmd͡ʒʰɪm	shower (rain)	1
pʰʊrʊk pʰʊrʊk	quickly	2
ʈapakna:	to drop	5
t͡ʃʰapa:k	sound of a plop	3
t͡ʃʰapt͡ʃʰap	splash	2
garad͡ʒna:	to rumble	1
paʈa:ka:	bang	1
ʈapʈapʈap	sound of dropping water	2
dʰam	sound of thumping	1
kalkal	burbling	4
kʰarkʰar	murmur	1
total		32

Table 3.2 Number of occurrences of auditory ideophones

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[6] This follows on from the sheer number of ideophones in different domains in the ideophone list in Appendix 1. Auditory ideophones are by far the largest category.

3.1.4.4 Video

9 subjects participated in the task of describing what they had seen in videos. Ideophones appeared in 33,3 % of possible cases (see the table 3.3). 9 ideophones were elicited. There was only one subject who did not name any ideophone during the whole elicitation process. Some videos proved to be more successful in eliciting ideophones than others. There were no ideophones elicited for video number 3, which depicted a flying snowboarder. There might be one explanation for this. Out of 9 ideophones there are 4 unambiguously of negative sentiment, 3 of neutral sentiment and one which could have both connotations. It seems that the semantics of ideophones that refer to movement usually depict negative connotations depicting funny, embarrassing and inelegant ways of moving, or neutral ones where graceful movements are exceptional. For instance, the flying snowboarder moved smoothly in the air, which could have been the reason why not a single ideophone was elicited, as it would have required an ideophone capable of depicting a positive way of moving.

In the following table, ideophones are listed in basic form made up of either a bare ideophone or, in the case of verbs, an infinitive:

Ideophone	translation	Num of occ.
ʈeɽʰaː meɽʰaː	crooked	9
ɾẽgnaː	to crawl	4
lãgɽaːnaː	to stagger	1
loʈpoʈ kaɾnaː	to roll	2
golgol gʰuːmnaː	to turn around	2
ɖagmagaːnaː	to stagger	1
laɽkʰaɽaːnaː	to stagger	6
gʊlaːtiː maːɾnaː	to do a somersault	1
banʈʰan	peacocking	1
total		27

Table 3.3 Number of occurrences of kinesthetic ideophones

3.1.4.5 Conclusion

The most important finding of this chapter is that ideophones really occur in the speech of native speakers. The design of my experiment was, of course, not the most ideal way of eliciting naturally occurring speech, but in the majority of cases speakers had a choice of either using an ideophone or not. They occurred in 36 % of cases of tactile stimuli, in 20% of cases of audio stimuli and in 33% of cases of video stimuli. The color domain proved to contain no ideophones at all. This elicitation task also supplied many new ideophones to the ideophone list in Appendix 1. Other domains, such as taste and smell, also require investigation because they might offer an interesting insight into these categories, and especially since I was only able to collect a very small number of ideophones for these two domains.

4. Semantic analysis

This section contains two parts. Chapter 4.1 is a theoretical justification of Frame Semantics as a useful tool for analyzing ideophones. Chapter 4.2 concerns a particular Frame Semantic analysis of ideophones and examines vivid sensation frame which is suitable for capturing ideophones.

4.1 Why is Frame Semantics more suitable for capturing meanings of Hindi ideophones than formal semantics

The first important question to be answered is: Why is the approach of Frame Semantics better than those of other theories? There is one important competing theory with huge impact on the field of theoretical semantics, known as formal semantics. I would like to argue in favor of why I consider Frame Semantics to be more suitable for capturing semantics of ideophones than formal semantics.

There are three arguments for this. The first argument is based on mechanisms of intersubjectivity. The second argument has to do with depiction. The third argument builds on Fillmore's discrimination between U-semantics (semantics of understanding) and T-semantics (semantics of truth).

1.4.1 Intersubjectivity

Both approaches significantly differ in terms of how they explain intersubjectivity. What is the mechanism that makes it possible to have some shared understanding of words or sentences? The approach of formal semantics towards meaning is well explained, e.g. by Peregrin (1999:27-34). It strongly opposes the mental view which states that every individual has his or her own concept of an entity connected to a given word in his or her head. Consider this sentence:

My neighbor has a dog.

If everybody had his own particular representation of a neighbor we would not be able to understand such a sentence uttered by someone else because those representations would be very different. My neighbor could be a tall thin man with a long beard and could own a dachshund whereas the neighbor of my interlocutor could be a fat man with a Great Dane. Those different concepts based on different neighbors are mutually inaccessible and therefore incomprehensible to both speakers. Formal semantics claims that we need to have some underlying shared concepts to be able to account for understanding in the above case and for every other sentence. These concepts must be identical for, and shared by, everyone. Otherwise, we would be lost in our small worlds of individual meanings, unable to communicate.

This idea of shared abstract concepts seems neat and tidy but it is not flawless. Such permanent insistence on the similarity of concepts in everyone's head brings with it two essential problems. It is not clear where they come from and where they are. Are we supposed to think that such abstract entities are innate and that individuals discover them as they grow up? Or are we supposed to think that such concepts are somewhere outside of our minds and that we access them while talking? This is a Platonic approach. It believes in innate or abstract concepts present far beyond bounded human minds. Unfortunately, this assumption is not well explained and analyzed by formal semanticians. It seems to be an assumption which is needed for their system and formalism to work without any other well-argued justification. The heart of the argumentation lies right here. It consists in whether someone is ready to embrace the fact that it works thus and without the need for further argumentation. This is one of the underlying axioms which must be accepted. On the other hand, cognitive approaches including Frame Semantics, do not see the point of postulating abstract and shared concepts that reside outside of human cognitive systems. The main reason for this is precisely because it does not need to include concepts that lie outside of the human mind.

It finds cognitive concepts sufficient to explain intersubjectivity among speakers. Before explaining how Frame Semantics accounts for intersubjectivity, let me quickly go through its basic notions. It works with the concept of frames. Let me cite the founder of Frame Semantics, Charles Fillmore:

"I thought of each case frame as characterizing a small abstract 'scene' or 'situation', so that to understand the semantic structure of the verb it was necessary to understand the properties of such schematized scenes." (Fillmore 1982:115)

Frames are used to characterize abstract scenes. They are schematized representations of a speaker's knowledge for the purposes of language expression; cognitive categories that capture terminological and cultural motivations of lexical meaning. In contrast to the approach of formal semantics, such concepts behaving as frames are rooted in the speaker's mind. As Petruck puts it:

"The knowledge and experience structured by the Commercial Transaction Frame provide the background and motivation for the categories represented by the words." (Petruck 1996:1)

Thus, words evoke frames in the mind of the hearer and they make understanding possible. Imagine an everyday situation of buying something in a shop. When talking about this situation, the Commercial Transaction Frame is activated. Such a frame, as a conceptualization of a scene, includes frame elements, which are entities necessarily connected to such a situation. In our case it is a buyer, a seller, goods and money, among other things. Depending on the verb we use to refer to this situation, both a different perspective on this scene and different frame elements become activated. The verb "buy" focuses on the buyer and on goods, backgrounding the seller and money; whereas the verb "sell" focuses on the seller and on goods, simultaneously backgrounding the buyer and money. It also works similarly for other verbs such as pay, spend and cost.

After this brief introduction to Frame Semantics, it is important to explain how it accounts for intersubjectivity. There are no ready-made shared frames available to speakers. Every speaker acquires such frames step by step by experiencing the world around him or her (see the last quotation of Petruck 1996). After having taken part in a commercial transaction situation often enough, the Commercial Transaction frame emerges. It obviously follows that such frames in two speakers can be different to some extent. Such a frame, in the context of a farmer from a small village, would be different from the one acquired by a business man living in a capital city. Naturally this raises the question: How do speakers communicate given such circumstances? How do they understand each other when their frames are different? The answer of Frame Semantics is simple. Speakers can easily communicate despite such differences. On the one hand, frames are "abstract scenes" which are fairly general, such as the Commercial Transaction Frame depicting relations among frame elements; on the other hand, such frames are idiosyncratic to some extent, a prototypical example being the transaction scene. In other words, it does not matter whether speaker A's frame is molded according to the business commercial transaction situation covering huge sums of money and huge amount of goods or companies as buyers and sellers, or whether speaker B's frame is molded according to the ordinary commercial transaction frame of buying food in a local shop. It does not hinder intersubjectivity because this frame is general enough to account for both situations.

What remains to be answered is why these differences in individual frames are better at capturing the semantics of ideophones. Ideophones not only depict sensations from the traditional five senses (hearing, vision, taste, smell, touch) but also internal sensations, such as states of mind, emotions, subjective evaluations, etc. This domain of sensory experiences, and especially its parts connected to inner experiences (e.g. emotions), is inherently subjective. It would make no sense to postulate objective concepts of happiness or of surprise. Such concepts are rooted in individual experiences with similar states of mind in accordance with the postulates of Frame Semantics (see Petruck's quotation above). I would suggest that Frame Semantics is much more suitable for capturing the semantics of ideophones because it emphasizes the subjective dimension of frames, so that they are allowed to become less uniform among speakers.

4.1.2 How ideophones depict perceptions

Ideophones are also special in another respect. Not only do they refer to a thing as other words do, but they also evoke it. Perceptions, which ideophones refer to, are much more vividly depicted and evoked than those by other words. Konrad puts it this way:

"… ideophones are … literary devices used to heighten dramatic tension, to accentuate certain actions and to draw attention to certain images and deemphasize others…. Ideophones are in effect an enormously affective and efficient tool performers have at their disposal to develop the privileged relationship shared between narrator and audience in a culturally defined context." (Konrad 1994:108)

In terms of Frame Semantics, ideophones bring with them the whole scene (schematized as a frame) they are part of, and make the addressee aware of it, in a much more intense way than other words do. For instance, the Commercial Transaction Frame is activated in the context of talking about buying something, but speakers need not be consciously aware of the scene itself. In contrast, ideophones considerably highlight the particular scene, its frame, and make it readily available to speakers. Consider the following phrase:

(28)
d͡ʒɪlmɪl   diːp
glimmering   lights

The ideophone "d͡ʒɪlmɪl" serves to evoke the whole scene of glimmering candles, as depicted in this picture. Therefore, ideophones are usually used by narrators to make their stories more interesting and more enjoyable for their addressees. Klamer says that ideophones "add vividness and liveliness to a narrative text" (2001:170).

4.1.3 T-semantics versus U-semantics

This chapter draws on the famous distinction made by Fillmore in his paper, "Frames and the Semantics of Understanding" (1985). He describes the semantics of understanding (U-semantics) as follows:

"The goal of U-semantics, is to uncover the nature of the relationship between linguistic texts and the interpreter's full understanding of the texts in their contexts." (Fillmore 1985:231)

Whereas the semantics of truth (T-semantics) is described as follows:

"… its goal is to characterize the conditions under which individual utterances of a give language can be said to be true." (Fillmore 1985:222)

In the first argument for Frame Semantics (see chapter 4.1), I said that both approaches offer different tools, different formalisms for different purposes. Fillmore's definitions entail that the goals of both theories are also markedly different (Frame Semantics as a representative of U-semantics and formal semantics as a representative of T-semantics). U-semantics is actually interested in what is going on in each speaker's mind and tries to explicate the mechanisms involved in understanding a text. It is predominantly occupied with the speaker and his or her mental processes. T-semantics omits the speaker in its analyses and is more interested in issues that are not dependent on individual speakers.

Concerning ideophones, formal semantics does not have much to offer at the current stage of my research. I am predominantly interested in single lexical units and their meanings. Formal semantics

focuses on truth values which start to be analyzable from the level of the utterance onward. There are no truth values to single words. Moreover, given that formal semantics is not lexical semantics, it cannot wholly analyze truth values because they cannot be determined without defining lexical meanings (Ocelák 2014). Let us take a look at sentence in the context of Ocelák's argumentation:

Alfred loves Beth.

It could be formalized this way: L(a,b). However, this is meaningless to anyone who does not know what it means to love. "As semanticists, we surely cannot get away with simply saying, "well, love has in its denotation all the ordered pairs of individuals where the first individual can be said to love the second." (Ocelák 2014:7) Without knowing what love is we have no idea what is meant by the sentence "Alfred loves Beth" and more importantly we cannot, in fact, determine its truth value. It is quite paradoxical because semantic theory is supposed to answer such question. Ocelák explains:

"But a scientist cannot investigate who is in love with whom unless she knows what love means. If she does not, who if not a semanticist should be the person to ask?!" (Ocelák 2014:7)

For the purposes of this stage of the research, I pose a similar question – what does a given ideophone mean? I need to know how they work. There is no way of analyzing the ideophone "d͡ʒʰɪd͡ʒʰɑk" (hesitation) using the tools of formal semantics. Ideophones do not represent truth values, nor do they represent objective abstractions that are independent of the human mind; their brief is to understand shared experiences (see chapter 1.4.1). What is more interesting, however, is to look into what kinds of processes they ignite in the speaker's mind and what sets them apart from other words. This perspective is investigated by Frame Semantics (= U-Semantics).

4.2 Semantics of ideophones

4.2.1 English swarm-predicates

Before turning to the semantics of ideophones in Hindi as a way of finding out how a suitably analyzed frame should look, I will explore Dowty's paper on swarm predicates in English (Dowty 2000). This paper focuses on argument alternations between "agent" and "location," both acting as subjects of the clause, e.g.

Bees were swarming in the garden.   Agent-subject

The garden was swarming with bees.   Location-subject

The analysis concerning agent/location subject is not relevant to our present discussion, but what I find worthy of further investigation is Dowty's semantic characterization of swarm predicates. On reading this article, it is surprising to observe that the semantic domains associated with swarm predicates, which exhibits this alternation, is strikingly similar to domains usually denoted by ideophones. These semantic classes are as follows:

1. Physical movements visually recognizable, readily and at a 'small scale,' usually found occurring repetitively: crawl, bubble, flow, etc.

2. Animal sounds and other perceptually simple sounds: hum, buzz, boom, etc.

3. Conceptually simple visual perception of some kind of light emission: beam, blaze, flash, etc.

4. Smells: reek, smell, etc.

5. Predicates indicating degree of occupancy or abundance: abound, teem, rampant, etc.

All of these semantic classes are also found in ideophones. I consider Dowty's article worth mentioning as a good example of how expressions for such domains can constitute a group defined by the same behavior, even in such a language as English. Also, some of his insights prove to be useful for Hindi.

Ideophones in Hindi also include other semantic classes. Concerning the traditional five senses, ideophones express tactile and taste sensations too. And there is also another huge domain, which, while not relevant for English, *is* for Hindi, comprising an internal world descriptive of emotional and cognitive states. In the next chapter, I will analyze the semantic domains covered by ideophones.

4.2.2 Semantic domains covered by ideophones in Hindi

Unfortunately, I still do not have access to how native speakers of Hindi structure their sensory semantic field. I am not sure whether our notion of the five senses also pertains to them. Therefore, I must use my own Central European-oriented view, which might be flawed. Dingemanse describes such accounts this way: "They rely on the analyst's categories and therefore may tell us more about the analyst's intuitions than about the structure of the domain itself" (2011:231). It would certainly be worth carrying out a pile-sorting task, as described in Dingemanse (2011:231-248), where subjects are asked to sort cards with given words according to their intuition in groups. In the absence of such research, I would like to conduct some elementary sorting myself, which may hopefully be tested on native speakers in the future. The analysis presented here may be viewed as a preliminary hypothesis based on my European intuitions. Now, I will examine those domains I consider important for a thorough analysis of the semantics of ideophones.

4.2.2.1 Domain of visual perceptions

(29)
ɪski: **t͡ʃamt͡ʃama:haʈ** akʰõ ko t͡ʃʊndʰija: ɾahi: tʰĩ:
its **gloss** eyes ACC is dazzling
Its **gloss** dazzles eyes.

Dowty's characterization of this domain fits Hindi very well. He describes it as a "conceptually simple visual perception of some kind of light emission" (Dowty 2000:115). Most ideophones belonging to this domain conform to this definition, such as mɪt͡ʃmɪt͡ʃa:na: (blink), d͡ʒagmaga:na: (to glitter) and ʈɪmʈɪma:na: (to flame/to blaze). I collected one ideophone which offers another perspective on this domain. Whereas, usually, ideophones assume the perspective of the source of light, such as "glittering star" (d͡ʒʰɪlmɪla:te ta:ɾe) where "star" is emphasized, this ideophone takes the perspective of the speaker and his reaction to the emitted light – tɪlmɪla:na: (to be dazzled). There are also ideophones for absence of light, such as d͡ʒʰʊkmʊk (blinding darkness).

4.2.2.2 Domain of auditory perceptions

(30)
ʃa:nda:ɾ pɾakɾɪtɪk samʊdɾi: lahaɾõ ki: **saɾsaɾa:haʈ** ke bi:t͡ʃ ham sabne bʰod͡ʒan ka: a:nãd lɪja:
awesome natural oceanic waves GEN **rustling** in middle we all meal GEN deligt took
In the middle of **rustling** waves of the ocean we all enjoyed our meal.

Again, Dowty's description of this semantic domain is ideally applied to Hindi (Dowty 2000:115). However, I would expand on it a little bit further since many ideophones fall into this category. This domain includes, animal and human sounds, sounds of nature and other perceptually simple sounds. This category comprises the most ideophones from the list in Appendix 1 (around 53 %). Indeed, this is not surprising as another label for these ideophones is onomatopoeic words. They can also be read as prototypical ideophones, as explained in chapter 1.3.4. Imitating natural sound through the sound of language is the most natural way of depicting it, of which other examples include: d͡ʒʰaɾd͡ʒʰaɾ (to gurgle), gaʈgaʈ (gulp) and kɪkɪra:haʈ (creaking).

This domain is also inclusive of ideophones that are devoid of any auditory perceptions. See the example below:

(31)
t͡ʃʊpt͡ʃa:p kamɾe se ba:haɾ nɪkal a:ja:
silently room out went out
He **silently** left the room.

4.2.2.3 Domain of gustatory perceptions

(32)

masaledaːɾ **t͡ʃatpaʈaː** kʰaːnaː kɪse pasɑnd nahĩ.
Spiced   **spicy**   meal   who   doesn't like
Who doesn't like spiced and spicy meals?

Ideophones seem to cover all traditional senses, but some seem to be more complex than others. For some domains I was only able to collect a very few examples, as in the case of the gustatory domain.

4.2.2.4 Domain of olfactory perceptions

(33)

r̃ãgiːle giːtõ se   **mɑhmɑh** hʋiː gʋlaːb baːɽiː
happy   songs INSTR **smelling**   rose   garden
rose garden **smells** like happy songs

Smells are also a category in Dowty's classification (Dowty 2000:115). Judging from the few words listed in this category, it seems that English does not have many words that refer to smells. The same applies to Hindi, or at least to the selected subpart of this domain. It is represented only by three members. The ideophone mɑhmɑh has an approximate meaning of "fragrance," i.e. it evokes a situation where something is accompanied by a fragrance.

4.2.2.5 Domain of tactile perceptions

(34)

lekɪn ɪske tel kiː ɑtjaːdʰɪk **t͡ʃɪpt͡ʃɪpaːhaʈ** ĩd͡ʒan ko kamzoɾ kaɾ detiː hɛ
but   its   oil GEN the most **adhesiveness**   engine ACC weak   is doing
,but the absolute **adhesiveness** of its oil makes the engine weak.

This domain contains words referring to temperature, consistency, hardness, and roughness of texture and surface. Words in this category often seem to be polysemous. Consider these examples:

t͡ʃɪpt͡ʃɪpaː **-** sticky, clinging, slimy or greasy

gʋdgʋdaː - soft, silky, smooth, plump

4.2.2.6 Domain of kinesthetic perceptions

(35)

laɾkaː **laɾkʰaɾaːta** hʋa kɪsi taɾah kʰaɾa ho gaja
boy   **stagerring**   in a way   remained standing
After **staggering**, the boy somehow managed to stand still.

Dowty characterizes this domain as follows: "Physical movements visually recognizable readily and at a 'small scale', usually found occurring repetitively" (Dowty 2000:115). It is an interesting

observation which applies to the core of this category in Hindi. Nevertheless, in Hindi further specifications of movements are also included in this category. Usually it modifies walking, as in the sentence (35). Or it specifies the movement of animals as follows:

(36)
sã:p rẽgta: hʊɑ: hɛ
snake   is crawling
The snake is crawling.

It can also modify other movements or more general actions involving a lot of movement, such as an act of destruction, for instance:

(37)
paɾʰa:i: kaɾne ka: d͡ʒo   sapna hɛ ʋo ʃa:di: ke ba:d t͡ʃu:r t͡ʃu:r ho d͡ʒa:jega:
studium   doing GEN which dream is it wedding after   **ruined**   will become
Her dreams about studying will be **ruined** after the wedding.

To sum up, this domain contains visually recognizable physical movements and perceptually salient ways of movement.

4.2.2.7 Domain of interoception

(38)
naɾdveʃi: **gʊmsʊm** ɾahne ke bad͡ʒa:j paɽosɪjõ se hãskʰʊlkar ba:tt͡ʃi:t kaɾti: tʰi:
Nardveshi **silently**   staying instead   neigbours ABL with smile   talkink   was doing
Instead of being **silent**, she talked merrily to neighbors.

Ideophonic meanings do not only cover the five traditional perceptual modalities of vision, touch, smell, hearing and taste, but also emotional interoception. This includes how speakers perceive and talk about their emotions and states of mind. Interoception is a very interesting extension of traditionally viewed perception and it seems that ideophones work similarly for both. Hindi has many such ideophones including: hɪt͡ʃkɪt͡ʃahaʈ (hesitation), bɔkʰla:na: (getting angry for no reason) and hakka: bakka: (perplexed).

4.2.2.8 Domain of high intensity

(39)
ab ekdam t͡ʃaka:t͡ʃak ta:za: rasbʰara: a:pki: apni: bʰa:ʃa: mẽ mɔd͡ʒu:d hɛ
now   **absolutely**   fresh full of pleasure your   own   language in   is present
Now, your language is **overfilled** with fresh pleasure.

Another class is also mentioned by Dowty (2010:115) – "Predicates indicating degree of occupancy or abundance" – a class not usually included in ideophones, e.g. Dingemanse (2011). Nevertheless it appears from time to time in some descriptions and definitions (see the quotes below). I call it "intensity." This semantic domain revives Doke's famous first definition of ideophones:

"A vivid representation of an idea in sound. A word, often onomatopoeic, which describes a predicate, qualificative or adverb in respect to manner, colour, sound, smell, action, state or intensity." (Doke 1935:118)

We see that Doke included it in his definition of ideophones. Another scholar to use the notion of intensity to explain ideophones is Noss (2004). I think that words expressing intensity belong to ideophones. The reason for this lies in the tight connection between perception and intensity. The way to determine the "intensity" of something, is to perceive it as such (regardless of whether it is a bright light, loud sound, strong taste or fast movement). We determine the intensity of a perception by evaluating it relative to some standard, which may be individual, social or cultural. In Hindi, ideophones for intensity are all reduplicated and they all bear the meaning of high intensity. This tightens them closely to their meaning via iconicity, as the more phonetic the material, the higher the intensity of meaning. Other examples include sɑɾɑːsɑɾ (totally) and kʰat͡ʃɑːkʰat͡ʃ bʰaɾɑː hʋɑː (full of).

Since ideophones depicting intensity seem to be rather controversial, they are not included in the following analysis. At this stage of my research it seems enough to mention them as a semantic domain, which might be at least somehow connected to ideophones.

4.2.2.8 Domain of high speed

(40)
mɑːnjɑtɑː ʊnki: zĩdagi: mẽ ɑːi: ɔr **pʰaʈɑːpʰaʈ** ʃɑːdi: bʰi: ho gɑi:
respekt   her   life   in came and **immediately** wedding too   was
She started being respected and **immediately** got married.

Finally, the "domain of high speed" appears in Hindi and is of particular interest. This class is not a separate class. It could be also subsumed under the kinesthetic domain as a way of describing how something moves or under the high intensity domain as a way of describing high intensity or speed of movement. There are 32 such words in the list of ideophones. Adverbs roughly mean "immediately," verbs mean "hurry" and bare ideophones correspond to variations on "Hurry up!". Nouns usually mean something like "hurry". Further examples are: bʰaɾbʰaɾɑːnɑː (to hurry), t͡ʃaʈpaʈi: (a hurry) and pʰarpʰar (immediately, quickly).

4.2.3 Conclusion
This table presents the frequency of all above mentioned domains in Ideophone list:

Domains	Amount	%
auditory	311	54
interocpetion	85	14,7
kinaesthetic	64	11
tactile	56	9,7
visual	45	7,8
high intensity	8	1,4
gustatory	5	0,9
olfactory	3	0,5
total	577	100

Table 4.1 Amount of ideophones according to domains

Ideophones depicting high speed are here subsumed under kinesthetic domain.

4.3 From the Sensory frame to the Vivid sensation frame

In this chapter I would like to build and elaborate on the "Sensory frame," coined by Fried (2005), with reference to FrameNet data which is accessible online[7]. The main goal of Fried's article is how to account for same-case alternations, as analyzed in Dowty's article (2010:115). It offers a Frame Semantics based approach. Fried construes another frame which she labels SENSORY EXPERIENCE, because she analyzes swarm predicates in Czech which are all in the domain of perception. She draws a picture of such a frame this way:

"…SENSORY EXPERIENCE must contain minimally three elements: a perceiver, an entity that triggers the sensory effect (= stimulus), and a place in which the perception holds." (Fried 2005:489)

At this stage we use the Sensory frame as another basic frame. It contains three core Frame elements, namely PERCEIVER, STIMULUS and LOCATION. Fried also mentions other non-core information contained in this frame – perceptual modality, scale, degree of perceptual complexity, etc. Now, it is time to spell out the details. This Sensory frame is very similar to the general frame, entitled by FrameNet as, simply, Perception. It is described in these words:

The general Perception frame is an inherited background to all frames that have to do with some sentient being responding to changes in the environment, independently of the sensory modalities.[8]

There are many frames which are inherited by, or connected to, this perception frame. As no one has ever examined ideophones from the perspective of Frame Semantics, it seems logical to find a more specific frame which would be able to capture ideophones. At first glance there are a few suitable

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[7] https://framenet.icsi.berkeley.edu/fndrupal/frameIndex
[8] https://framenet.icsi.berkeley.edu/fndrupal/frameIndex

frames, such as Perception active, Perception experience, Perception body Sensation, Location of light, and Make noise and Sounds. Let me consider how this classification would fit Hindi.

For the sake of simplicity, it would be more practical to allow one frame for all perceptual modalities covered by ideophones. Because all ideophones work the same way it makes sense to capture this generalization in one frame. Such a frame would be quite similar to the perceptual frame, but for a special feature called the "depictive mode of reference." From existing English frames, the Sensation frame seems to be the most appropriate. It covers all important Frame elements and at the same time it is general enough to cover all perceptual modalities. Let me cite the Sensation frame description from the FrameNet website[9]:

This frame contains nouns that refer to sensations in different modalities. The FE Source is used for the phenomenon that gives rise to the sensation in question. The FE Percept is used for the characteristic quality of the sensation. In cases of veridical perception these are not typically distinguished from one another; we use the FE Percept as the default in these cases. With some nouns in this frame it is possible to express the being who experiences the sensation, or the part of the body of such a being. We mark such expressions with the Fes Perceiver_passive and Body_part, respectively. (The -passive part of this label serves to distinguish this FE from the Perceiver-Agentive FE used in other frames.)

Core Frame elements:

A. Body_part

This FE is assigned to phrases expressing the body part in which a sensation is located.

Example: I have a tingling feeling in my hands.

B. Ground

This FE is the perceptual background against which the Phenomenon is experienced by the Perceiver.

C. Perceiver_passive

This FE is only expressed with certain nouns in this frame, and then only with the help of a support verb.

Example: I have a tingling sensation in my hands.

D. Percept

The FE Percept is used for phrases that express the characteristic property of a sensation.

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[9] https://framenet.icsi.berkeley.edu/fndrupal/index.php?q=frameIndex

Example: This herb gives off a smell <u>of garlic.</u>

E. <u>Source</u>

This is the entity or phenomenon which gives rise to the sensation. In cases of veridical sensation, this FE is not typically distinguished from Percept.

Example: The smell <u>of the garlic</u> made me hungry.

The Sensation frame in English looks like how it is exemplified above. Concerning Fried's sketch of a Sensory experience frame (see last quotation), it contains both important frame elements – her Perceiver as Perceiver_passive and her Stimulus as Percept. The location mentioned by Fried was important for her discussion of the agent/location subject and it is not included here because it does not bare similar significance for ideophones in Hindi – it is usually not obligatorily expressed. Now I will try to analyze a few examples of ideophones from Hindi from the perspective of the Sensation frame. Consider this sentence:

(41)
d͡ʒɪn mẽ lɛmppost kiː   piːli t͡ʃɑːjɑːẽ **d͡ʒɪlmɪlɑːtiː** hɛ
which in lamp   GEN yellow shadows **are glittering**
In which yellow shadows of lamps **are glittering**.

The verb d͡ʒɪlmɪlɑːnɑː definitely evokes the SENSATION frame. We clearly see why it is important

to have separate frame elements for Source and for Percept. In this sentence the lamp is the Source and its shadows are the Percept. Perceptual ground would be visual. And what about other core frame elements? Here is another example exemplifying the Perceiver:

Consider another sentence which contains a Body part frame element:

(42)
d͡ʒoɽiː ɪs fɪlm mẽ logõ ke peʈ   mẽ **gʊdgʊdiː** kɑː tuːfɑːn lɑːne mẽ saphal ɾahegiː
pair this movie in people GEN stomach in **tickling** GEN storm bring in success will be
This pair will be successful in bringing a storm of **tickling** in the stomachs of people.

I will confine myself only to the comment on the frame evoked by the ideophone gʊdgʊdiː in this sentence. In Hindi there are many ideophones for various kinds of tickling, itching, etc. Such a sensation of tickling would need the construction of "in stomach" assigned to the Body part frame element.

(43)

ɑːp sɑb ke ɪtne   pɾem se mẽ **gɑdgɑd**   ho gɑjaː hũː
you all GEN that much love ABL I **very happy** became

Love of you all made me **very happy**.

This sentence connotes the issue of emotions. In the Sensation frame for English, emotions are not mentioned. I suggest they could be included in this frame, at least for Hindi. There are some examples, even in the frame description, which present some scenes conceptually closer to emotions, such as: "I have a tingling feeling in my hands." This is a kind of physical feeling which does not necessarily need to imply any physical stimulus. Such a physical feeling can rise from the inner mechanisms of the body. The same applies to emotions. They do not need any physical outer stimulus such as other sensory domains (e.g. air waves for sounds). From the point of view of ideophones, we can conceptualize emotions as Percept (speakers perceiving their emotions or states of mind), optionally evoked by any Source that is understood more broadly as a cause. However, we need another FE in this frame to express a perceiver of emotions – Perceiver_pass is not suitable. We need to have some more specialized FE highlighting direct experiencing of emotions.

We have seen how Core frame elements of the Sensation frame are useful for analysing ideophones in Hindi. I would provisionally label this frame, VIVID SENSATION. The notion of vividness is the most important semantic feature that differentiates this frame from other frames. As mentioned above (see chapters 1.3.2 and 1.3.3), ideophones not only refer to a scene (depicted by a frame), they also animatedly depict it through language. This also needs to be specified in the frame description. Let us take a closer look at this frame in Hindi. The frame description could be formulated in this way:

"This frame contains words referring to vivid sensations. The words included in this frame have an ability to evoke this frame much more vividly than other words from other frames do. Such words are known as ideophones. The FE Percept is used for the sensation itself. The FE Modality is used to mark to which sensory modality a given word belongs, since this distinction is quite significant for this frame. The FE source is important because in many cases, a source is different from percept and ideophones tend to refer to the latter. The FE body_part is not obligatorily expressed but occurs often enough to be counted as the core FE."

Core frame elements:

A. <u>Percept</u>

This FE is the most important one because all ideophones evoke some perceptions. Ideophones usually refer to some percepts.

B. Perceiver_pass

This FE is not obligatory, but it occurs very often in Hindi. Ideophonic meanings revolve more around percepts than around perceivers and perceivers do not actively search for them. Hence, the perceiver included in this frame is passive.

C. Modality

Since we are faced with many semantic domains based on different sensory modalities which are covered by ideophones, I consider it convenient to establish a way of marking the domain to which a given frame falls. Although it seems that there are no differences in expressing these domains through language at this current stage of the research, there is a striking disproportion among a number of ideophones collected for individual domains (only three for the olfactory domain compared to hundreds for the auditory domain).

For Hindi it is also important to broaden the notion of sensation to include emotions and mental states which are usually depicted by ideophones. However, there is no need to postulate another frame because there is no difference in language expression between perceiving the outer world and perceiving emotions.

It can have these values: auditory, olfactory, tactile, gustatory, visual, emotions, state of mind.

D. Source

It is important to include a source that is separate from the percept, because they usually come up in a sentence together (see sentence (41).

E. Body part

Some perceptions explicitly rise in some part of the body. They are assigned this FE.

F. Experiencer

This FE is reserved only for ideophones depicting emotions and states of mind. This FE is assigned to persons who experience states of mind and feel emotions. It is important to differentiate between Experiencer and Perceiver_pass because there is a difference between a person perceiving some outer percept (Perceiver_pass) and experiencing emotions (Experiencer).

I consider this frame to inherit from general Perception frame. I think that it covers a fair amount of ideophones. At this stage, this frame seems not to need any additional inheriting frames. It does not make sense to have other Sounds or Make sound frames, as in English, because they are both covered by the Ideophonic sensation frame. Let me explain why this is so. I will first quote two sentences from the Sound frame definition and then discuss it.

"A physical entity, construed as a point-Sound_source, emits a Sound. This includes animals and people making noise with their vocal tracts."[10]

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[10] https://framenet.icsi.berkeley.edu/fndrupal/index.php?q=frameIndex

I do not clearly see the difference between Sound and Percept and Sound_source and Source. In my opinion, sound is only a subcategory of Percept. Obviously it would not make sense to create a new frame for each possible modality of Percept, such as (Visual stimulus, taste stimulus…). It would fail to capture an important generalization which is maintained by FE Modality. This frame also contains Noisy_event as a Frame element. But this could also be subsumed under the Percept frame element. For this reason, I do not consider this frame to be important for capturing ideophones in Hindi. I am now satisfied with one general frame for all ideophones. As the research on Hindi ideophones continues, ideophones or existing ideophones of this nature may appear in unknown contexts and there would have to be some kind of extension, through inheriting frames, for some special cases.

Now, I will carry out three analyses of three sentences using the suggested VIVID SENSATION frame. You will see how different words get assigned to different Frame elements:

(44)
d͡ʒɪn mẽ lɛmppoʂ ki: pi:li: t͡ʃɑːjaːẽ d͡ʒɪlmɪlaːti: hɛ
which in   lamp   GEN yellow shadows **are glittering**
In which yellow shadows of lamps **are glittering**.

VIVID SENSATION FRAME

Percept	t͡ʃɑːjaːẽ
Perceiver_pass	no
Modality	visual
Source	lɛmppoʂ
Body_part	no
Experiencer	no

(45)
aːkãːkṣaː baːhaɾ ke kamɾe mẽ bɪstaɾ paɾ **gʊmsʊm**   leʈi: tʰi:
Ákakshá   outside GEN room   in bed on **contemplatively** was lying
Akaksha was **contemplatively** lying on a bed in an outside room.

VIVID SENSATION FRAME

Percept	gʊmsʊm
Perceiver_pass	no

Modality	state of mind
Source	no
Body_part	no
Experiencer	ɑ:kã:kʂɑ:

In this example sentence, we can see the Experiencer, but not the Perceiverp_pass frame element, because the sensation of contemplativeness is experienced personally, not perceived.

(46)
..dIl **gɑd gɑd** ho d͡ʒɑ:jegɑ:
 heart **very happy** became
.. the heart became **immensely happy**

VIVID SENSATION FRAME

Percept	gɑd gɑd
Perceiver_pass	no
Modality	emotion
Source	no
Body_part	dIl
Experiencer	no

In this sentence, Body_part is not expressed as a postpositional phrase in the usual way, but as a subject of a sentence. Frames are flexible enough to cover such cases. Of course, not only is the heart happy, but also its bearer. It is also possible to express the Experiencer in this sentence by attributing this heart to someone by genitive phrase.

4.4 Conclusion

In this chapter, I have tried to justify why I consider Frame Semantics to be suitable for semantic analysis of ideophones. I have surveyed semantic domains associated with ideophones and suggested the VIVID SENSATION frame as the best way of capturing ideophones in terms of Frame Semantics. This frame has been suggested only for Hindi. So far, it is only treatment of such a language phenomenon in the framework of Frame Semantics. I am inclined to think that a similar analysis would also be suitable for other ideophonic languages because meanings that are closely tightened to perception and cognition are better captured by cognitive approaches than by formal ones.

A strikingly disproportionate distribution of ideophones among semantic domains is worth researching further. It needs to be explicated why there are only a few ideophones that depict gustatory and olfactory perceptions, and conversely, why tactile and kinaesthetic perceptions are covered to a much greater extent.

5. Conclusion

Hopefully, I was able to justify why I consider this special group of Hindi words to be ideophones. They share many common features with ideophones from other languages. If my suggestion would be accepted, Hindi would be added to the pool of ideophonic languages and would offer its data to emerging ideophonic typology. It might be interesting enrichment since there are nearly no information about ideophones in Indian languages available.

The elicitation task conducted in India, which is described in this thesis, was designed to investigate whether the speakers of Hindi actively use ideophones. A fair number of ideophones was elicited which means that they are not unknown to speakers and that they are able to use them.

I have also shown that Frame Semantics is suitable for capturing ideophonic meanings. This thesis offers a new frame labeled Vivid sesation frame.

Since this thesis is the first attempt ever to examine such class of words in Hindi, analyses presented here might be understood as preliminary because I have no literature to build on. It sheds a little light on an unexamined language phenomenon in Hindi. I hope that many papers investigating this immensely interesting topic will follow soon.

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7. Appendix – Ideophone list

List of ideophones was created from four sources:

  A. My own excerptions

As I was reading Hindi novels, I searched for ideophones. I include them in this list.

  B. Dictionary

Hindi-Czech dictionary (Strnad et al. 1998) has many interesting labels used in description of words. One of them is "onom." meaning obviously onomatopoetic words. Luckily enough, this label was used for some ideophones connected to other sensory modalities then just to hearing. I had a possibility to use pdf version of this dictionary, so extraction of relevant vocabulary was quite easy.

  C. Rácová's list of ideophones in Bengali

Rácová was so kind that she shared with me her list of ideophones in Bengali via e-mail from 24.2.2014. As Bengali and Hindi are closely related languages, I was searching for Hindi equivalents of words on her list.

  D. Smékal's list of fully reduplicated words in Hindi

O. Smékal was not only a scholar teaching Hindi at Charles University in Prague. He was also a poet capable of writing poetry also in Hindi. He was quite sensitive in terms of Hindi words and their potential of expressing emotions, states of mind and perceptions. He collected a good number of such words and it contains mainly onomatopoetic words and also some ideophones.

Labels used in the column Semantic domains stand for: O – onomatopoeic/auditory, TACT – tactile, INTER – interoception, INT – intensity, V-visual, "V-colour" – colour, SP – speed, MOV-movement/kinaesthetic, OLF-ofactory, TAST – taste/gustatory.

Tabbel App1. Ideophone list

Ideophone	Sem.domain	Translation
aɡaɽbaɡaɽ	O	rubbish
aʈpaʈaː	INTER	confused

ɑmɑtol	TACT	fat, unclear
ɑːgbɑbuːlɑː	INTER	angry
kɑnkɑnɑː	INTER	disgusting, thrilling
kɑnkɑnɑː	TACT	crisp, fragile
kɑɾkɑɾɑː	TACT	hard, dry, rough
kɑskɑsɑː	TACT	sandy, gritty
kiɾkiɾɑː	TACT	sandy, gritty
kʊt͡ʃkʊt͡ʃɑː	TACT	soft,flabby
kʊmkʊmiː	TACT	round
kʊɾkʊɾɑː	TACT	crisp,fragile
kʰɑskʰɑsɑː	TACT	sandy, gritty
kʰɪt͡ʃɪmɪt͡ʃɪ	INT	congested,full
kʰʊɾkʰʊɾɑː	TACT	uneven,rough, rugged
kʰʊɾdʊɾɑː	TACT	rough
gɑdbɑdɑː	TACT	fat,clumsy
gɑhgɑhɑː	INTER	excited
gɪd͡ʒgɪd͡ʒɑː	TACT	pulpous, flimsy
gɪlbɪlɑː	TACT	drenched
gʊɽmʊɽiː	TACT	crumbled
gʊdgʊdɑː	TACT	soft, smooth
gʊngʊnɑː	TACT	lukewarm
gʊlgʊlɑː	TACT	smooth, soft, fragile
gʰit͡ʃpɪt͡ʃ	INT	overcrowded
t͡ʃɑkt͡ʃɑkɑː	V	shining
t͡ʃɑʈɑkiːlɑː	V	flashy, showy
t͡ʃɑʈt͡ʃɑʈɑː	O	cracking
t͡ʃɑʈpɑʈɑː	TAST	spicy
t͡ʃɑɽbɑɽijɑː	O	chattering
t͡ʃɑɾt͡ʃɑɾɑː	TAST	piquant, of pugnent taste
t͡ʃɑɾmɑɾɑː	O	producing a creaking sound
t͡ʃɪknɑː	TACT	flat, polished

t͡ʃɪɽt͡ʃɪɽɑː	INTER	irritable
t͡ʃINTERt͡ʃINTERɑː	TACT	sticky
t͡ʃɪlbɪlɑː	INTER	restless,agile
t͡ʃʊnt͡ʃʊnɑː	TAST	pungent
t͡ʃʊɽt͡ʃʊɾɑː	TAST	crisp,brittle
t͡ʃʊɾmʊɾɑː	TACT	crisp
t͡ʃʊlbʊlɪjɑː	INTER	restless,naughty
t͡ʃʊht͡ʃʊhɑː	V-colour	deep-coloured, sappy
t͡ʃʰapt͡ʃʰapɑː	TACT	wet
t͡ʃʰaɾhaɾɑː	TACT	swift, slim, thin
d͡ʒagmagɑː	V	bright
d͡ʒald͡ʒalɑː	INTER	dissatisfiedd
d͡ʒʰakd͡ʒʰakɑː	V	shining
d͡ʒʰamd͡ʒʰam	V	glittering
d͡ʒʰalmalɑː	V	bright
d͡ʒʰINTERd͡ʒʰINTERɑː	O	dripping
d͡ʒʰɪɾd͡ʒʰɪɾɑː	TACT	very thin
ʈʰɪʈʰaki	INTER	perplexed
ɖʰɪlɖʰɪla	TACT	liquid,loose
tʊɽtʊɾɑː	SP	quick, fast
tʰaltʰal	TACT	flabby
tʰaltʰalɑː	TACT	softl, flabby
daɾdaɾɑː	TACT	coarsely ground,granulated
daldalɑː	TACT	boggy, marshy
daldali	TACT	boggy, swampy
pɪt͡ʃpɪt͡ʃɑː	TACT	flabby, watery
pINTERapɪlɑː	TACT	soft/mushy
pɪlpɪlɑː	TACT	flaccidly soft, pulpous, flabby
pʊlpʊlɑː	TACT	flaccidly soft, pulpous, flabby
pʰaʈpʰaʈɪjɑː	SP	quick
pʰʊpʰʊsi	TACT	

pʰʊspʰʊsaː	TACT	fragile,brittle
bʰʊrbʰʊɾaː	TACT	crisp,dry and powdery
maɾmaɾaː	TACT	cracking, fragile
malmalaː	TACT	very soft, gentle
mahmahaː	OLF	sweet smelling
mʊlaːjam	TACT	smooth,soft
la͡tʃla͡tʃaː	TACT	flexible, elastic
laɽbaɽaː	MOV	stagerring, tripping
latʰpatʰ	INTER	drenched
laslasaː	TACT	adhesive, slimy
li͡dʒli͡dʒaː	TACT	clammy, sticky
liblibaː	TACT	slimy, adhesive
sansaniːdaːr	INTER	exciting
hakkaːbakkaː	INTER	confused
haʈʈaːkʊʈʈaː	TACT	robust
haɽbaɽ	SP	hasty
gʰamaːgʰam	O	noisily
t͡ʃaʈ	SP	quickly
t͡ʃaʈpaʈ	SP	quickly
t͡ʃaʈaːkpaʈaːk	SP	promptly
t͡ʃaʈaːt͡ʃaʈ	O	cracking sound
t͡ʃʰanaːt͡ʃʰan	O	with clinking noise
t͡ʃʰamaːt͡ʃʰam	O	sound of incessant downpour
t͡ʃʰɪnnbʰɪnn	MOV	into pieces (destroy)
d͡ʒʰamaːd͡ʒʰam	O	with tinkling sound
ʈʊkʊrʈʊkʊr	MOV	firmly
pʰaʈaːpʰaʈ	SP	immediately
pʰarpʰar	SP	briskly
saɾaːsar	INT	totally, absolutely
ka͡tʃka͡tʃ	O	twittering, quarrel
ka͡tʃpa͡tʃ	INT	overcrowding

ka͡tʃarka͡tʃar	O	prattle
kaʈkaʈ	O	jolting
kaɽak	O	bang, sound of a thunder
kaɽkaɽ	O	bang, rumbling
kaɽa:kaɽ	O	cracking sound
kaɽaɽkaɽaɽ	O	sound of violent crackling
kalkal	O	burbling
kalbal	O	uproar
kasmas	INTER	restlessness
kã:kã:	O	quacking
kã:jkã:j	O	croaking
kã:vkã:v	O	croaking
kɪʈkɪʈ	O	quarrel
kɪɽkɪɽ	O	twaddle, cluck
kɪɾkɪɾ	O	whining constantly (usually what kids do when ill)
kɪlkɪl	O	quarrel
kĩ:kĩ:	O	chirping
ki:ki:	O	screaming
kʊɽkʊɽ	O	sound of breaking a crisp object
kʊlbʊl	MOV	movement of small insects
ku:ku:	O	cackling
ku:ku:	O	cooing
kẽkẽ	O	chirping
kʰa͡tʃa:kʰa͡tʃ	INT	overcrowded
kʰaʈ	O	blow, crack
kʰaʈkʰaʈ	O	cracking, quarrel
kʰaʈpaʈ	O	growl
kʰaʈa:kʰaʈ	O	sound of beating
kʰaʈa:kʰaʈ	O	with noise
kʰaɽkʰaɽ	SP	hurry
kʰaɽbaɽ	MOV	swarming

kʰanak	O	jingling
kʰarkʰaɾ	SP	quarrel/murmur
kʰaɾaɾkʰaɾaɾ	O	hoarse voice
kʰalkʰal	O	sound of flowing water
kʰalbal	SP	bustle, hurry
kʰaskʰas	O	sound of grinding teeth
kʰã:kʰã:	O	coughing
kʰɪt͡ʃkɪt͡ʃ	INTER	chewing someone's brains out
kʰi:kʰi:	O	giggling
kʰʊrkʰʊɾ	O	rattling sound of phlegm in the throat
kʰʊskʰʊs	O	whispering
kʰʊsʊrkʰʊsʊɾ	O	whisper
kʰʊsʊrpʰʊsʊɾ	O	whisper
kʰõkʰõ	O	coughing
gaʈgaʈ	O	gulp
gaɾgaɾ	O	roaring or thundering ound
gaɾbaɾ	MOV	confused, disorder
gaɾmaɾ	MOV	disorderly
gadgad	INTER	ultimately happy
gada:gad	SP	in quick succesion
gangan	INTER	trembling
gapgap	O	gulping sound
gapʃap	O	gossip, tattle
gapgap	SP	quickly
gɪʈpɪʈ	O	chatter
gʊʈaɾgũ:	O	cooing
gʊɾgʊɾ	O	bubbling
gʊdgʊd	INTER	ticklish/tickle
gʊngʊn	O	muttering,buzzing
gʊmsʊm	INTER	
gʊlgʊl	TACT	soft/paliable

gũːgũː	OLF	reeking
golgol	MOV	around
gʰaɽgʰaɽ	O	thundering sound
gʰamaːgʰam	O	sound of blows
gʰamaːgʰam	O	noise
gʰargʰar	O	whirring or snorting sound, gurlge, rumble
gʰarargʰarar	O	sound of rubbing
ghʊsʊrpʊsʊr	O	whispering
gʰẽgʰẽ	O	faltering in speech
t͡ʃakpak	INTER	astounded
t͡ʃakaːt͡ʃak	INT	abundantly
t͡ʃakaːt͡ʃa	TACT	wet
t͡ʃakat͡ʃɔdʰ	V	glister
t͡ʃakʰt͡ʃakʰ	O	noisy dispute
t͡ʃaʈ	O	crack
t͡ʃaʈak	V	glow
t͡ʃaʈakmaʈak	V	glow
t͡ʃaʈt͡ʃaʈ	O	to crack
t͡ʃaʈart͡ʃaʈar	O	cracking sound of wooden shoes
t͡ʃaʈaːk	O	bang
t͡ʃapaɽt͡ʃapaɽ	O	prattle
t͡ʃabart͡ʃabar	O	gossip, prattle
t͡ʃabʰaɽt͡ʃabʰaɽ	O	dog-like drikning of water
t͡ʃamakdamak	V	glitter
t͡ʃamt͡ʃam	V	gleaming
t͡ʃamaːt͡ʃam	V	shining
t͡ʃart͡ʃar	INTER/O	crackle, painful sensation as by drying up of a wound
t͡ʃarmar	O	sound produces by pressing someting tightly
t͡ʃahak	O	twittering
t͡ʃɪlt͡ʃɪl	V/TACT	shining,scorching
t͡ʃĩː	O	moan

t͡ʃiːt͡ʃiː	O	tweeting
t͡ʃʊpt͡ʃaːp	O	silent/silently
t͡ʃʊɾmʊɾ	O	sound produces by breaking a crisp object
t͡ʃʊlbʊl	INTER	itch, inkling
t͡ʃũːt͡ʃũː	O	peeping
t͡ʃẽt͡ʃẽ	O	twittering
t͡ʃʰakt͡ʃʰak	O	puffing as a machine
t͡ʃʰakaːt͡ʃʰak	INT	completely
t͡ʃʰanak	O	tinkle
t͡ʃʰanakbʰanak	O	rattling
t͡ʃʰant͡ʃʰan	O	tinkle
t͡ʃʰap	O	splash
t͡ʃʰapt͡ʃʰap	O	splashing sound
t͡ʃʰapaːk	O	sound of a plop
t͡ʃʰamt͡ʃʰam	O	clinking
t͡ʃʰaɾt͡ʃʰaɾ	O	sound made by the fall of small things or by something moving rapidly in the air
t͡ʃʰalt͡ʃʰal	O	spilling sound, murmur
t͡ʃʰĩt͡ʃʰĩ	O	booing
t͡ʃʰʊnmʊn	O	sound of toys
d͡ʒagmagaːna	V	shining
d͡ʒagaɾmagaɾ	V	shining
d͡ʒʰãkaːɾ	O	tinkle, rattling
d͡ʒʰakd͡ʒʰak	O	wrangling, chattering
d͡ʒʰakaːd͡ʒʰak	V	shining, polish
d͡ʒʰand͡ʒʰan	O/INTER	jingling/sharp sensation of nubness
d͡ʒʰanaːd͡ʒʰan	O	jingling
d͡ʒʰanaːd͡ʒʰan	O	with buzzing
d͡ʒʰamd͡ʒʰam	O	tinkling of bells
d͡ʒʰamaːd͡ʒʰam	V	shining
d͡ʒʰaɾd͡ʒʰaɾ	O	to gurgle
d͡ʒʰald͡ʒʰal	V	brightness

d͡ʒʰalmal	V	glitter o light
d͡ʒʰala:d͡ʒʰal	V	very bright
d͡ʒʰã:vd͡ʒʰã:v	O	roaring
d͡ʒʰɪd͡ʒʰak	INTER	vacillation
d͡ʒʰɪlmɪl	V	gleam
d͡ʒʰʊkmʊk	V	blinding darkness
d͡ʒʰʊnd͡ʒʰʊn	O	rattling sound
ʈakʈaki:	V	gaze,stare
ʈanʈan	O	ding dong
ʈana:ʈan	O	ringing of bells
ʈapʈap	SP	tapping
ʈapʈapʈap	O	sounds of dropping water
ʈapa:ʈap	MOV	with tapping
ʈã:jʈã:j	O	cackling
ʈɪkʈɪk	O	ticking sound
ʈINTERʈINTER	O	sound of falling drops
ʈʊkʈʊk	MOV	with a fixed look
ʈẽʈẽ	O	chattering
ʈeʈʰa:meʈʰa:	MOV	crooked
ʈʰanʈʰan	O	jingling sound, clink
ʈʰana:ʈʰan	O	with a clinking noise
ʈʰasa:ʈʰas	INT	full
ʈʰã:ʈʰã:	O	coughing
ʈʰã:jʈʰã:j	O	brawl
ʈʰi:ʈʰi:	O	giggling
ʈʰʊnʈʰʊn	O	weeping of a child
ʈʰũ:ʈʰũ:	O	whimpering
ɖagmag	INTER	trembling
ɖʰamɖʰam	O	sound of a drum
ɖʰã:ɖʰã:	O	coughing
taɽakbʰaɽak	V	glitter

taɽtaɽ	O		cracking sound
taɽap	INTER		unease
taɽa:kpʰaɾa:k	SP		immediately
taɽa:taɽ	O		with a cracking sound
tẽtẽ	O		yapping
tʰaɾtʰaɾ	INTER		thrill
dana:dan	SP		in quick intermittent succesion
dama:dam	O		with a damdam noise
dugdug	O		with fear
dʰakdʰak	INTER		palpitation
dʰakpak	O		palpilation of heart
dʰaɽdʰaɽ	O		knocking sound
dʰaɽa:dʰaɽ	SP		continuously, quickly
dʰabdʰab	O		sequence of thuds
ɖʰam	O		sound of a thump
ɖʰamɖʰam	O		sound made by the fall of a heavy object
ɖʰama:ɖʰam	O		sound of stamping
ɖʰã:ɖʰã:	O		coughing
ɖʰã:jɖʰã:j	O		brawl
dʰjã:dʰjã:	O		whimpering
paɽpaɽ	O		sound of beating aor falling
paɽa:ka:	O		bang
paɽa:paɽ	O		continous sound of beating
paɽa:paɽ	SP		quickly
paɽpaɽ	O		cracking sound
pɪɽpɪɽ	O		sound of knocking
pɪnpɪn	O		child-like crying in nasalized tones)
pi:pi:	O		birds singing
pjã:pjã:	O		whimpering
pʰaɽpʰaɽ	O		pattering
pʰaɽpʰaɽ	O		flapping sound

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pʰadpʰad	O	gurgling
pʰarpʰar	MOV/O	flutter
farfar	SP	swiftness
pʰʊrpʰʊr	O	sound of a bird's wings in flight, flap
pʰʊspʰʊs	O	whispering or hissing
pʰũːpʰũː	O	puffing
pʰũpʰũ	O	puffing
bakad͡ʒʰak	O	babble,praggling
bakbak	O	twaddle
barbar	O	growling
banʈʰan	MOV	peacocking
barbar	O	talkativness, gossip
bãːbãː	O	mooing
bʊrakbʊrak	O	gurgle
bʊlbʊl	O	nightingale
bʰakbʰak	O	sound of sudden emergence of a jet of smoke
bʰarbʰar	SP	rashness
bʰadbʰad	O	sound of a falling object
bʰanbʰan	O	hum, humming
bʰalbʰal	O	sound of flowing water
bʰãːjbʰãːj	O	roaring of the wind
bʰibʰin	O	buzzing,humming
bʰunbʰun	O	muttering
bʰũːbʰũː	O	barking
bʰẽbʰẽ	O	bleating
bʰõbʰõ	O	stabbing
bʰɔ̃bʰɔ̃	O	barking
bʰjaːbʰjaː	O	bleating
mat͡ʃaːmat͡ʃ	O	sound of cracking
mahmah	OLF	with fragrance
mɪnmɪn	O	humming of bees

mẽmẽ	O	bleating
mjã:ʋmjã:ʋ	O	mewing
mjõmjõ	O	mewing
ɾɪmt͡ʃʰɪm	O	drizzling of rain
ɾĩːɾĩː	O	whimpering
ɾʊnd͡ʒʰʊn	O	tinkling of small bells
ɾũːɾũː	O	whimpering
ɾẽɾẽ	O	braying
laglag	TACT	lanky, lean, thin
lapd͡ʒʰap	SP	brisk, nimble
laplap	O	sound produced by moving a stick or by a drinking dog
saʈpaʈ	INTER	astonishment
saʈɑːsaʈ	SP	quickly
saɾɑːsaʈ	O	with repeated sound of a whip
san	O	thrilling sensation
sansan	O	whizz
saɾsaɾ	O	hissing
siːsiː	O	fizzing
sʊgpʊg	O	whisper
sʊgsʊg	O	whispering
sungun	O	whisper
sʊɾsʊɾ	O	creeping or crawling sound
sũːsũː	O	sniffling
hakbak	INTER	confused
hapd͡ʒʰap	SP	quickly
habaɾdabaɾ	SP	quickly
halbal	SP	hurry
halhal	O	trembling, shiver
haːjhaːj	O	sighing
hɪt͡ʃaɾmɪt͡ʃaɾ	INTER	hesitating
hĩːhĩː	O	giggling

hi:hi:	O	giggling
hʊkaɽpʊkaɽ	O	palpilation
hʊkʊɽpʊkʊɽ	O	palpilation
hũ:hũ:	O	cursing
hũ:hũ:	O	hooting
paʈpaʈ	SP	swiftly,briskly
pʰanpʰan	O	snake's hissing
kãpkãpa:haʈ	INTER	shiver
kãpkãpi:	INTER	shiver, tremor
kat͡ʃaɽmat͡ʃaɽ	O	rubbish
kaɽkaɽa:haʈ	O	cracking sound
kaɽa:ka:	O	bang
kankana:haʈ	INTER	itching
kaɽkaɽa:haʈ	O	cracking noise
kasmasa:haʈ	INTER	uneasiness
kɪt͡ʃkɪt͡ʃa:haʈ	O	state of grinding tea
kɪt͡ʃkɪt͡ʃi:	O	state of grinding tea
kiɽaka:haʈ	O	cracking noise
kɪɽkɪɽa:haʈ	O	creaking
kɪlkɪla:	INTER	sound of joy
kɪlkɪla:haʈ	O	loud noise
kʊɽkʊɽi:	O	rumbling in the stomach owing to hunger
kʊlkʊli:	INTER	itch, restlessness
kʊlbʊla:haʈ	MOV	wriggling,creeping
kʊskʊsa:haʈ	O	whispering
kʰat͡ʃmat͡ʃ	MOV	doing somethint that is not appropriate
kʰaɽkʰaɽa:haʈ	O	rattle
kʰaɽbaɽa:haʈ	INTER	perplexity
kʰankʰana:haʈ	O	jingling
kʰaskʰasi:	V-colour	bluish white
kʰɪlkʰɪla:haʈ	O	laughter

kʰʊrkʰʊrɑːhaʈ	TACT	ruggedness
gaɽgaɽaːhaʈ	O	rumble
gaɽgaɽiː	O	small drum
galgalaː	O	gargle
gɪlgɪliː	INTER	tickle
gʊɽgʊɽaːhaʈ	O	rumble
gʊdgʊdaːhaʈ	INTER	tickling, enthusiasm
gʊdgʊdiː	INTER	tickling, enthusiasm
gʊngʊnaːhaʈ	O	humming, buzzing
gʰaɽgʰaɽaːhaʈ	O	roar, thunder sound
gʰangʰanaːhaʈ	O	tinkle, ringing sound
gʰamgʰamaː	TACT	heat
gʰaɽgʰaɽaːhaʈ	O	whirr, whizz
gʰʊɽgʰʊɽaːhaʈ	O	snorting, grumbling
t͡ʃaʈakaːɽaː	O	smack
t͡ʃaʈpaʈiː	SP	hurry, perplexity
t͡ʃaʈaːkaː	O	bang
t͡ʃamt͡ʃamaːhaʈ	V	glow, glitter
t͡ʃaɽt͡ʃaɽaːhaʈ	O	crackling noise
t͡ʃaɽpaɽaːhaʈ	TAST	piquancy
t͡ʃaɽmaɽaːhaʈ	O	creaking sound
t͡ʃɪɽt͡ʃɪɽaːhaʈ	INTER	peevishness, fretfulness
t͡ʃINTERt͡ʃINTERɑːhaʈ	TACT	waxiness, flabbines
t͡ʃʊnt͡ʃʊnaːhaʈ	INTER	burning pain
t͡ʃʊnt͡ʃʊniː	INTER	burning pain, itch
t͡ʃʊlt͡ʃʊlaːhaʈ	INTER	itch
t͡ʃʊlbʊliː	INTER	itch
t͡ʃʊlbʊlaːhaʈ	INTER	restlessness
t͡ʃʰaʈpaʈaːhaʈ	INTER/INTER	writhing, longing
t͡ʃʰant͡ʃʰanaːhaʈ	O	hissing
t͡ʃʰapkaː	O	splash

t͡ʃʰart͡ʃʰara:haʈ	INTER	burning pain
d͡ʒagmaga:haʈ	V	glitter
d͡ʒʰakd͡ʒʰaka:haʈ	V	glow, glitter
d͡ʒʰand͡ʒʰana:haʈ	O	tinkling sound
d͡ʒʰald͡ʒʰala:haʈ	V	glare
d͡ʒʰalla:haʈ	INTER	irritableness
d͡ʒʰʊtpʊʈa:	V	semi-darkness
d͡ʒʰʊnd͡ʒʰʊna:	O	child's rattle
d͡ʒʰʊnd͡ʒʰʊnɪjã:	O	little bells worn on feet
d͡ʒʰʊnd͡ʒʰʊni:	INTER	thrilling sensation
d͡ʒʰʊrd͡ʒʰuri:	INTER	shivering
d͡ʒʰʊrhʊri:	INTER	shivering
ʈamʈama:haʈ	INTER/INTER	get furious
ʈimʈɪma:haʈ	V	glimmer
ɖɪmɖɪmi:	O	drum
ɖʊgɖʊgi:	O	small drum
tɪɾmɪɾa:	V	dazzling light
tɪɾmɪɾa:haʈ	V	dazzling light
tʰaptʰapa:haʈ	MOV	pat, tap
tʰaptʰapi:	O	pat, tap, clap
tʰaɾtʰaɾa:haʈ	INTER	shivering
tʰaɾtʰaɾi:	INTER	shivering, vibration
tʰʊptʰupi:	MOV	pat, tap
dagdaga:	INTER	fear, doubt
dagdagi:	INTER	apprehension, fear
damdama:	O	tumult, report of a huge kettle-drum
dʰakdʰaka:haʈ	INTER	fear
dʰakdʰaki:	INTER	fear
dʰʊnmʊnɪja:	MOV	stumbling
pINTERɪla:haʈ	TACT	softness
pʊlpʊla:haʈ	TACT	softness

pʰanka:ɾ	O	hissing
pʰaɾɾa:ʈa:	SP	hurry
pʰʊrpʰʊra:haʈ	O	fluttering of a wing
pʰʊrpʰʊri:	O	fluttering of a wing
pʰʊspʰʊsa:haʈ	O	whisper
baɽbaɽa:haʈ	O	rattle,mutter,murmur
baɽbaɽɪja:	O	grouch
balbala:haʈ	O	noise made by camel
bʊdbʊda:	O	bubble
bʊdbʊda:haʈ	O	muttering
bʊlbʊla:	O	bubble
bʰaɽbʰaɽɪja:	O	chatterbox
bʰanbʰana:haʈ	O	whizzing, humming
bʰabʰaɾa:haʈ	INTER	perplexity, impatience
bʰinbʰina:haʈ	O	buzzing,humming
bʰʊlbʰʊla:	TACT	scorching asches
mat͡ʃmat͡ʃa:haʈ	O	cracking
malmala:haʈ	INTER	regret, grief
laslasa:haʈ	TACT	adhesivness,sliminess
sansana:haʈ	INTER	thrilling sensation
sansani:	INTER	thrilling sensation
saɾsaɾa:haʈ	SP	haste, hurry
saɾsaɾi:	SP	haste, hurry
saɾɾa:ʈa:	O	whizz
sʊrsʊra:haʈ	O	rustling, creeping
sʊrsʊri:	O	rustling, creeping
haɽbaɽi:	V	disorder
halbali:	SP	hurry, confusion
hɪt͡ʃkɪt͡ʃa:haʈ	INTER	hesitation
hʊdhʊdi:	INTER	fear
ekʈak dekʰna:	V	with a fixed look

kaʈkaʈaːnaː	O	to jolt
kaɽkaɽaːnaː	O	to rumble
kaɽakna	O	to crack, to rumble
kasmasaːnaː	INTER	to become restless
kɪkɪjaːnaː	O	to yell
kɪt͡ʃkɪt͡ʃaːnaː	O	to laugh
kɪrkɪraːnaː	O	to creak
kɪlaːnaː	O	to laugh
kʊɽkʊɽaːnaː	O	to cackle
kʊskʊsaːnaː	O	to whisper
kʰaʈkʰaʈaːnaː	INTER	to shiver
kʰaɽkʰaɽaːnaː	O	to grumble
kʰaɽbaɽaːnaː	INTER	become uneasy
kʰanakna	O	to ring
kʰankʰanaːnaː	O	to ring
kʰɪlkʰɪlaːnaː	O	to laugh
gaɽgaɽaːnaː	O	to boom
gaɽbaɽaːnaː	INTER	to be confused
gaɽad͡ʒna	O	to rumble
gɪɽgɪɽaːnaː	INTER	to beg
gʊɽgʊɽaːnaː	O	to bubble
gʊɽgʊɽaːnaː	O	to growl (stomach)
gʊdgʊdiː honaː	INTER	to cheer up
gʊrraːnaː	O	to growl
gʰaɽgʰaɽaːnaː	O	to rumble
gʰangʰanaːnaː	O	to chink
gʰaɽgʰaɽaːnaː	O	to rattle
gʰʊgʰʊaːnaː	O	to hoot
gʰʊɽgʰʊɽaːnaː	O	to rattle
t͡ʃaʈakna	O	to burst
t͡ʃaʈakaːnaː	O	to slam

t͡ʃaʈt͡ʃaʈaːnaː	O	to crackle
t͡ʃamaknaː	V	to glow
t͡ʃamt͡ʃamaːnaː	V	to gleam
t͡ʃaɾt͡ʃaɾaːnaː	O/INTER	to fume
t͡ʃaɾmaɾaːnaː	O	to squeak
t͡ʃahaknaː	O	to twitter
t͡ʃaht͡ʃahaːn	O	to twitter
t͡ʃɪʈknaː	O/INTER	to splutter
t͡ʃɪɽkaːnaː	O/INTER	to annoy
t͡ʃINTERt͡ʃINTERaːnaː	TACT	to cling, to adhere
t͡ʃʊlbʊlaːnaː	MOV	to wriggle
t͡ʃuːɾt͡ʃuːɾ kaɾnaː	MOV	to destroy completely
t͡ʃʰaʈpaʈaːnaː	MOV	to convulse
t͡ʃʰanaknaː	O	to hiss
t͡ʃʰanakaːnaː	O	to tinkle
t͡ʃʰant͡ʃʰanaːnaː	O	to chink
t͡ʃʰapt͡ʃʰapaːnaː	O	to splash
t͡ʃʰamt͡ʃʰamaːnaː	V	to glint
t͡ʃʰaɾt͡ʃʰaɾaːnaː	INTER	to sting
t͡ʃʰɪlt͡ʃʰalaːnaː	O	to drip
d͡ʒagmagaːnaː	V	to glitter
d͡ʒʰãkaːɾnaː	O	to ring
d͡ʒʰanaknaː	O	to prattle
d͡ʒʰand͡ʒʰanaːnaː	O	to ring
d͡ʒʰamd͡ʒʰamaːnaː	O/V	to gleam
d͡ʒʰaɾnaː	O	to murmur
d͡ʒʰɪlmɪlaːnaː	V	to glitter
d͡ʒʰʊ̃d͡ʒʰlaːnaː	INTER	get nervous
d͡ʒʰʊnd͡ʒʰʊnaːnaː	O/INTER	to crackle, to tinkle
ʈapaknaː	O	to drop
ʈas se mas na honaː	MOV	not to move at all

ʈɪmʈɪmaːnaː	V	to flame/blaze
ʈʰɪʈʰaknaː	INTER	go numb
ʈʰɪʈʰaɾnaː	INTER	be growing cold
ɖagmagaːnaː	MOV	to hobble
ɖabɖabaːnaː	O	to drop
ɖʰaɽɖʰaɾaːnaː	O	to rumble
taɽapnaː	INTER	to writhe in pain
tɪlmɪlaːnaː	V/MOV/INTER	to be dazzled
tʰaptʰapaːnaː	MOV	to tap with love
tʰaɽtʰaɾ kãːpnaː	INTER	to tremble
tʰaɽtʰaɾaːnaː	INTER	to shiver
pʰaʈpʰaʈaːnaː	O	to clatter
pʰaɽpʰaɾaːnaː	MOV/INTER	bird wing's beating
pʰanpʰanaːnaː	O/MOV	to hiss, to dangle
pʰaɽpʰaɾaːnaː	INTER	to flutter
baɽbaɾaːnaː	O	to growl
bɪlbɪlaːnaː	O/MOV/INTER	to moan, to writhe
bʊɽbʊɾaːnaː	O	to growl
bʊdbʊdaːnaː	O	to bubble, to murmur
bɔkʰlaːnaː	INTER	to get angry for no reason
bʰaɽbʰaɾaːnaː;	SP	to act rashly
bʰanbʰanaːnaː	O	to buzz
bʰabʰaknaː	V	flare up
bʰɪnaknaː	O	to buzz
bʰinbʰinaːnaː	O	to buzz, to mutter
bʰunbʰunaːnaː	O	to mutter angrily
bʰɔ̃knaː	O	to bark
mít͡ʃmít͡ʃaːnaː	V	to blink
mít͡ʃlaːnaː	INTER	to be sick
mɪmɪnaːnaː	O	to mumble
mɪmɪjaːnaː	O	to bleat

rãbʰaːnaː	O	to moo
rẽgnaː	MOV	to slither
lãɡɽaːnaː	MOV	to hobble
laɽkʰaɽaːnaː	MOV	to stagger
laplapaːnaː	MOV	to spring
loʈpoʈ	MOV	rolling
sansanaːna	INTER	to shiver
sarsaɽaːnaː	O	to rustle
sɪʈpɪʈaːnaː	INTER	lose one's composure
suɽakna	O	to sip
subakna	O	to moan
sʊrsʊraːnaː	MOV	to swarm like insect
hakbakaːnaː	INTER	be startled
haklaːnaː	O	to stutter
haɽbaɽaːnaː	MOV	to move confusedly
hã:pna	O	to pant
hɪt͡ʃkɪt͡ʃaːnaː	INTER	to hesitate