CHAPTER 3: Methodology

This Chapter provides the methodology of data source/collection and outlines the theoretical framework adopted for the present study.

3.1. Data source/collection

Data is being collected from different dictionaries both old and recent written texts of modern and old periods to study their etymological basis for explaining different related senses. Dictionaries contain information about words. Most of the dictionaries generally include the possible polysemy of the particular language. Dictionaries became the main source of getting information about polysemy that lexical items contain in a particular language. It is said to be the treasure-house of information on polysemy. The following are the main sources for data collection for the present study:

- A Lower Ladakhi Version of the Kesar Saga (1905) by A.H. Francke.
All the three Ladakhi dictionaries available now have included limited senses of words. Especially, the ones by Norberg-Hodge (1991) and Abdul Hamid (1998) have limited lexical entries with no citations or illustrations. The Ladakhi-English dictionary (unpublished) by Rebecca Norman adds some more senses with some illustrations. This is an up-to-date dictionary compiled in the light of current ideas on lexicographic practice and different speech varieties. In addition to the senses identified by previous lexicographers, this study has succeeded in finding additional senses.

International Phonetic Alphabet ‘IPA’ symbols are used in the thesis for transcribing the Ladakhi sentence examples.

Deignan and Potter (2004) used large computerized corpora of English (which contained 329 million words at the time of study) and Italian (from two corpora totaling around 35 million words) to combine the power of conceptual metaphor theory to explain the non-literal senses of lexis from the field of the human body. They found a number of equivalent expressions across the two languages.

Some scholars like Fillmore & Atkins 1992, also have made use of the language corpora as sources of real-life data, but here also the analyst basically relies on his/her own linguistic intuition when analyzing the instances of a word in the texts an classifying them into neat semantic categories. The same thing
occurs in cases where the analyst when trying to find evidence about prototypicality effects based on the frequency in a corpus.

Ibarretxe-Antunano (1996, 1997, 1999a, 1999b, 2002, 2004, 2006, 2008a, 2008b), Lily I-wen Su & Laura Hsiu-min Liu (2001) and Flora Yu-Fang Wang (…?) have done number of studies on polysemy within the framework of Cognitive Linguistics taking the monolingual as well as bilingual dictionaries as main source of data. Ibarretxe-Antunano has done cross-linguistic studies (English, Basque and Spanish) on polysemy in perception verbs and body part terms taking the monolingual and bilingual dictionaries as well as written corpora as main source of data.

In the case of Ladakhi, no language corpus is available so far. The first Ladakhi dictionary was published only in 1991 followed by the second one in 1998. Ladakhi is in the process of development. Therefore, this study has adopted the dictionaries as the main source for data collection. The senses mentioned in the dictionaries are used in thesis followed by an indication (e.g. ‘LED: RN’, ‘LEUD: AH’ and ‘LED: HN’ to refer to ‘Ladakhi-English Dictionary by Rebecca Norman’, ‘Ladakhi-English-Urdu Dictionary by Abdul Hamid’ and ‘Ladakhi-English Dictionary by Helena Norberg-Hodge’ respectively. Senses not mentioned in dictionaries are marked as ‘Additional’.
3.2. Possible data for analysis


3.3. Theoretical Framework

The basic theoretical assumptions in this thesis belong to the framework of Cognitive Linguistics. A central concern of Cognitive Semantics is the notion that lexical items, as well as word classes and grammatical constructions, are conceptual categories that have to be studied and investigated as reflecting general cognitive principles, rather than purely formal linguistic principles.” (Cuyckens and Zawada, 2001: x). Cognitive Linguistics is a new approach to the study of language that emerged in the 1970’s as a reaction against the dominant
generative paradigm which pursues an autonomous view of language (see Ruiz de Mendoza 1997).

3.3.1. **Categorization**

Linguistic categorization is an important area of research in the linguistic study of a language. The study of linguistic categories is relevant in both semantic and syntax as well as morphology. The categories may be monosemous and polysemous. In the context of Ladakhi language, it would be useful to discuss the notion of polysemous categories in terms of prototype, metaphor and metonymy that are central to Cognitive Linguistics. Categorization is not a matter to be taken lightly. There is nothing more basic than categorization to our thought, perception, action, and speech (Lakoff, 1987: 5).

People usually categorize things together on the basis of either what the things have in common or their experience and imagination. If we take position that language is shaped by cognition, multiple meanings of a polysemous lexeme are by definition a matter of categorization.

3.3.2. **Prototype**

The concept of prototypes is reminiscent of the renowned American psychologist Eleanor Rosch (1973, 1977 & 1978). Rosch introduces the role of prototypes to elucidate human’s categorization. According to Rosch (1978: 36), prototypes can be defined as the ‘clearest cases of category membership defined
A prototype of a category is thus viewed as salient exemplar of the category.

The prototype is the typical member of a category to which other members are related in a motivated way (Rosch 1977, 1978). Rosch’s work claims that central instances of a category are ‘prototypical’ for that category and such instances appear to be more salient for people, according to a wide range of tests. Other authors refer to the prototypical meaning as the ‘ideal’ meaning (Herskovits 1986), and the ‘primary nuclear sense’ (Austin, 1961: 71). People construct any category around a quintessential example or typical member; other members pertain to the degree that they share attributes with that prototype. Polysemy appears to be a special case of prototype-based categorization, where the senses of the words are the members of a category (Lakoff, 1987: 378).

Applying the notion of category and categorization to the study of words and their polysemous senses, words are considered as categories and their polysemous senses as members of such a category. In terms of prototypical theory, this means that the central member and the less central ones are not necessarily linked directly; a less central member can be included in the same category via its ‘resemblance’ with another less central member which does have a direct relation with the prototype. The prototype meaning is the most prominent and the most typical member of a category. It is the example that first
comes to mind when one thinks of that category. Hence, category members do not have equivalent status; some are more important or central than others.

3.3.3. Radial categories

A category exists whenever two or more distinguishable objects or events are treated equivalently. This equivalent treatment may take any number of forms, such as labeling distinct objects or events with the same name, or performing the same action on different objects.

The work of Ladoff (1987) is highly influential: word senses constitute conceptual categories organized with respect to a prototype: radial categories. A radial category is a conceptual category in which the range of meanings associated with a word are organized with respect to a prototypical sense. This provides the category with structure, modeled in terms of a radiating-lattice configuration. More prototypical senses are represented as occupying a more central position within the radial category, whereas less prototypical senses are represented as being more peripheral.

‘Radial categories’ are extensions of the prototype. They are less ‘typical’, and may differ from the prototype in one or more features. They may also represent metaphorical extensions of the prototype (as in “go”).

The Ladakhi word go meaning ‘head’ has many senses while occurring in different contexts that can be shown in the following diagram. The nearest to
the central box is find to be the most prototype or the central meaning of the lexeme \textit{go}.

The category of ‘\textit{go}’

It is clear from the above examples that the meanings of the noun \textit{go} are closely related with each other. Hence the category noun \textit{go} refers to something like ‘top’ in all the above given instances and therefore it is a case of polysemy and the sense of ‘human head’ is the most central meaning compare to others.

The category mother is structured radially with respect to a number of its subcategories: there is a central subcategory as shown above, defined by a cluster of converging cognitive models (the birth model, the nurturance model, etc.); in
addition, there are non-central extensions which are not specialized instances of the central subcategory, but rather are variants of it (adoptive mother, birth mother, foster mother, surrogate mother, etc.). These variants are not generated from the central model by general rules; instead, they are extended by convention and must be learned one by one. But these extensions are by no means random. The central model determines the possibilities for extensions together with the possible relations between the central model and the extension models.

In the case of mother, radial structure within a category is another source of prototype effects. Within radial categories in general, less central subcategories are understood as variants of more central categories. Therefore, birth mother and foster mother are not understood purely on their own terms; they are comprehended via their relationship to the central model of mother. A radial structure is one where there is a central case and conventionalized variations on it which can not be predicted by general rules and have to be learned separately.

Polysemy is conceptually real: if word senses are instantiated in long-term semantic memory—a radial category is a grouping of conventionalized senses—then it follows that a monosemy approach can not hold. That is, while some aspects of a word-meaning must come from the context, there are distinct and identifiable meanings associate with a particular word that can not be predicted from context alone.
Chaining within a category: as linguistic categories are seen as being no different, in principle, from other kinds of non-linguistic categories, linguistic categories are structured and extended by virtue of general cognitive mechanisms. Such mechanisms include conceptual metaphor, and image-schema transformations. A consequence of the application of operations such as these is that lexical categories are systematically extended giving rise to meaning chains.

1. Words and their senses constitute conceptual categories, and therefore have much in common with non-linguistic categories. As such, linguistic categories have prototype structure.

2. Word senses are polysemous, being structured with respect to a common prototype (or prototypes). As such, lexical categories can be said to form radial categories—categories organized with respect to a prototype—and can be modeled as a radiating lattice structure.

3. Radial categories, and specifically meaning-extensions from the prototype, are motivated by virtue of application of general cognitive mechanisms such as metaphor and image-schema transformation. Hence, radial categories are motivated structures.

According to Jeffrey Henning, ‘radiation is metaphorical extension on a grander scale, with new meanings radiating from a central semantic core to embrace many related ideas. The word ‘head’ originally referred to that part of the human body above the rest. Since the top of a nail, pin or screw is, like the human
head, the top of a slim outline, that sense has become included in the meaning of head. Since the bulb of a cabbage or lettuce is round like the human head, that sense has become included in the meaning of head. Know where I’m headed with this? The meaning of the word head has radiated out to include the head of a coin (the side picturing the human head), the head of the list (the top item in the list), the head of a table, the head of the family etc.’

3.3.4. Family resemblance

The idea that members of a category may be related to one another without all members having any properties in common that define the category. The first major crack in the classical theory is generally acknowledged to have been noticed by Wittgenstein (1953, 1:66-71). The classical category has clear boundaries, which are defined by common properties. Wittgenstein pointed out that a category like game does not fit the classical mold, since there are no common properties shared by all games. Some games involve mere amusement, like ring-around-the-rosy. Here there is no competition—no winning or losing—though in other games there is. Some games involve luck, like board games where a throw of the dice determines each move. Others, like chess, involve skill. Still others, like gin rummy, involve both.

Though there is no single collection of properties that all games share, the category of games is united by what Wittgenstein calls family resemblances. Members of a family resemble one another in various ways: they may share the
same build or the same facial features, the same hair color, eye color, or temperament, and the like. But there need be no single collection of properties shared by everyone in a family. Games, in this respect, are like families. Chess and go both involve competition, skill, and the use of long-term strategies. Chess and poker both involve competition. Poker and old maid are both card games. In short, games, like family members, are similar to one another in a wide variety of ways. That, and not a single, well-defined collection of common properties, is what makes game a category.

In prototypical categorization, categories are also based to some extent on what Wittgenstein (1953) called ‘family resemblance’. The relations between members of a given category are like those in a family: a daughter might resemble her mother, and the mother her father, but this does not necessarily mean that grandchild and grandfather are alike.

3.3.5. Meaning Extension

Polysemy is a consequence of lexical semantic evolution towards different but related directions; different senses are linked in terms of the semantic relatedness. Lakoff (1987: 91) describes the extensions of a central model as being motivated by the central model plus certain general principles of extension. What is important here is ‘motivation’. Extensions from prototypical meaning have to be motivated. These motivations can be considered as sources of
polysemy in the framework of Lakoff’s study. There are three important sources of polysemy.

The first source is metaphor. Metaphor is a process of “mapping of the logic of one domain (usually, but not always, a concrete domain) onto another (usually more abstract) domain” (Taylor, 1989: 138). When a word is used in a different domain from its original domain through mapping, and the usage is well conventionalized, the word acquires a new sense. For example, the word foundation can be used to mean ‘basic idea’ as in expressions like to be without foundation. This is because an expression of a domain: BUILDING, is used to express concepts of another domain: THEORY.

The second source is metonymy. Metonymy is a cognitive process of “using one entity to refer to another that is related to it” (Lakoff and Johnson, 1980: 35). If a waitress says, The ham sandwich is waiting for his check, the expression the ham sandwich is used to refer to an actual person, the person who ordered a ham sandwich. Similarly, when we say, The kettle’s boiling, the object which is boiling is not the kettle itself, but ‘the water in the kettle’. As this usage is well conventionalized, the word kettle actually acquired the meaning ‘the water inside a kettle’.

The third source is image-schema transformation. Image schemas are cognitive structures, which “are directly derived from every day bodily experience” (Ungere and Schmid, 1996: 108). Lakoff asserts the importance of
image schemas for polysemy; “There are certain very natural relationships among
image-schemas, and these motivate polysemy…” (Lakoff, 1987: 440).

**Metaphor and Metonymy**

Lakoff & Johnson (1980) observe that “Metaphor is pervasive in everyday
life, not just in language but in thought and action. Our ordinary conceptual
system, in terms of which we both think and act, is fundamentally metaphorical in
nature.” Papafragou (1996) states that “unlike many metaphors, metonymies often
seem extremely natural and need not carry an ornamental or literary overtone.”

Metaphor and metonymy are two basic imaginative cognitive mechanisms.
They are not figures of speech, as they are considered by many traditional
objectivist approaches (see, for example, Halliday 1985: 319-20). They are the
means by which it is possible “to ground our conceptual systems experientially
and to reason in a constrained but creative fashion” (Johnson 1992: 351). As
Barcelona (1997: 12) puts it both mechanisms are “complex mental mappings of
our knowledge of one domain of experience [the source domain] to structure our
knowledge of a different domain of experience [the target domain]”. But, whereas
in metaphor, we project part of one conceptual domain onto another separate
domain, in metonymy, the projection takes place within the same domain.

For instance, in the sentence *I see what you mean*, there are two different
experiential domains: the source domain of the bodily act of visual perception and
the target domain of intellection. The mapping between these two different
conceptual domains is carried out by means of metaphor. However, in *Mary tasted the camembert*, the mapping does not take place between different conceptual domains, but within the same domain through metonymy; instead of the word *cheese*, the name of the place where it is produced is used.

Differentiating metaphor from metonymy, Lokoff and Johnson (1980) states that “metaphor and metonymy are different kinds of processes. Metaphor is principally a way of conceiving of one thing in terms of another, and its primary function is understanding. Metonymy, on the other hand, has primarily a referential function, that is, it allows us to use one entity to stand for another.” Lakoff and his collaborators have sketched the differences between metaphor and metonymy as follows (see Lokoff—Johnson, 1980: 36; Lokoff—Turner, 1989: 103):

- Metaphors involve two conceptual domains, one being understood in terms of the other; while metonyms involve only one conceptual domain, i.e. the mapping occurs within a single domain and not across domains.
- In metaphor the structure and logic of the source domain is mapped onto the structure and logic of the target domain; this means that the primary function of a metaphor is understanding, while metonyms are mainly used for reference.
- The relationship between the source and target of a metaphor is of the “is-a” kind; in metonyms there is a “stand-for” relationship, since one entity in a schema is taken to stand for another entity in the same domain or for the domain as whole.
The “stand-for” relationship is simply the result of the domain-internal nature of metonymic mapping; that is, the false impression that metonymies obligatorily require a “stand-for” relationship derives from the fact that metonymies are constructed on the basis of a single conceptual domain, in such a way that one of the domains is already part of the other.