Tactile-Terms in Gujarati: A Cognitive Semantic Analysis

Jahanvi Shah
Department of Linguistics, Faculty of Arts, The Maharaja Sayajirao University of Baroda, Vadodara
jahxnvi@gmail.com

Ajay Sarvaiya
Department of Linguistics, Faculty of Arts, The Maharaja Sayajirao University of Baroda, Vadodara
ajay.sarvaiya-linguistics@msubaroda.ac.in

Abstract

Touch is one of the five basic human senses with which one perceives the physical world around oneself. The conceptualization of touch varies among different languages. This paper attempts to analyze the conceptualization of tactile terms in Gujarati. The primary focus is on the conceptualization of the tactile terms with reference to their prototypical usage, and also their non-prototypical usage, that is, their metaphorical extensions. For example, [gərəm svəbʰav] 'hot temperament' or [ʈaɖʰo svəbʰav] 'cold temperament' conveys short-tempered and calm attributes of personality, respectively. These extended meanings are based on the conceptual metaphors available in the language, where the source domain is a touch descriptive adjective while the target domains vary. The target domains are established based on the conceptual metaphors observed in the conversational use of the language. There hasn't been much work done in this area, especially in Indian languages.

This paper is divided into three sections. The first section consists of an introduction. The second section deals with the analysis of data. In closing, the third section provides the conclusion.

Keywords: touch, tactile terms, cognitive semantics, conceptual metaphors, conceptual blending

1. Introduction

Touch is one of the five basic human senses, along with taste, smell, sound, and sight. Touch is important to the learning and existence of humankind since it is imperative to the survival of humans. One can gauge the harmfulness or harmlessness of an object by touching it.

Tactile terms (or touch-terms) are words that describe this sensation of touch. However, there is no basic cover term for words of sensation of touch. For example, there are seven basic taste terms in Gujarati (Wakhale & Sarvaiya 2021: 2), but there is no specific number of 'touch-terms.'

In this paper, six tactile terms have been discussed from a cognitive semantic perspective. Using the Cognitive Metaphor Theory and the Conceptual Blending Theory, this paper tries to analyze the selected tactile terms.

In the cognitive semantic framework, metaphor is defined as understanding one conceptual domain in terms of another conceptual domain (Kövecses 2010, Lakoff and Johnson 1980). One way of capturing this view is: CONCEPTUAL DOMAIN A IS CONCEPTUAL DOMAIN B, which is called a conceptual metaphor. Any coherent organization of experience is called a conceptual domain. A metaphor is essentially a cognitive structure that involves conceptualizing one domain of experience in terms of another domain of experience (Kövecses 2010, Lakoff and Johnson 1980, Lakoff 1993). The two domains that participate in a conceptual metaphor have specific names. The conceptual domain from which metaphorical expressions are drawn to understand another conceptual domain is called the source domain, and the conceptual domain that is understood in this way is called the target domain (Kövecses 2010, Lakoff and Johnson 1980). Metaphor, in cognitive semantics, is regarded as a fundamental property of the everyday use of language; and metaphors involve not only ways of talking about phenomena but also ways of thinking about them (Lakoff and Johnson 1980, 1999).

In cognitive semantics, metaphor is linked to the notion of construal by the virtue of the fact that different ways of thinking about a particular phenomenon (i.e., different construal of that phenomenon) are associated with different metaphors. In any given metaphor, the Conceptual Domain A is the TARGET domain and Conceptual Domain B is the SOURCE domain. As noted by Kövecses (2010), the source domains are typically more concrete or physical and more clearly delineated concepts than the target domains, which tend to be fairly abstract and less-delineated ones.

TIME IS MONEY
You're *wasting* my time.
Can you *give* me a few minutes?
How do you *spend* your time?
We are *running out of* time.

In the above conventionalized linguistic expressions, time is conceptualized as money, where time is the target domain and money is the source domain. So, the experiences with the concrete domain of money are mapped on to the experiences of the abstract domain of time.

A conventional metaphor is also defined as a conceptual mapping between two domains (Croft and Cruse 2004: 196). This mapping is not based on similarity between two concepts, as believed by the traditional or classical theory of metaphor, but rather on the correlation of our experience in these two domains and our ability to structure one concept in terms of the other (Kövecses 2010). They are, in other words, embodied in nature. They are grounded in experiences of being and interacting in a given society and culture.

Mental spaces are small conceptual packets constructed as one thinks and talks, for purposes of local understanding and action (Fauconnier and Turner 2002: 40). According to the conceptual-blending theory, two or more mental spaces, also known as input spaces, are brought together, and integrated or 'blended', resulting in a new blended space that contains information projected from both input spaces. The input spaces not only feed the blended space but are connected to each other via cross-space mappings or vital relations (Fauconnier and Turner 2002, Ungerer and Schmid 2006).

In this paper, the source domain is the touch descriptive adjective or the 'tactile-term', and the target domain is the noun that is described by the tactile term. These metaphors have been segregated according to the source domain. For instance, if the term 'hard' is being discussed, then that forms metaphors such as "target domain is hard."

The motivation behind analyzing these tactile terms is to study how tactile terms, or the sensation of touch, are conceptualized with regard to other domains. It also provides insight into the importance of tactility and its impact on one's perception of the world.

2. Data Analysis

In this paper, we analyze and discuss six tactile terms using the conceptual metaphor theory in a cognitive semantic framework. For every term, a prototypical usage where the meaning of the tactile term is used literally, and a non-prototypical usage where the meaning of the touch term is metaphorically extended, are analyzed.

2.1 *gərəm* 'hot'

Prototypically, this tactile term is used for things that are hot to the touch. For instance, [*gərəm paɳi*] 'hot water' is used for water that is hot, and [*gərəm t͡ʃa*] 'hot tea' is used for tea that is hot.

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Language in India www.languageinindia.com **ISSN 1930-2940 22:9 September 2022**
Jahanvi Shah and Ajay Sarvaiya
Tactile-Terms in Gujarati: A Cognitive Semantic Analysis   48

The following are the non-prototypical usages of the touch-term:

2.1.1 TEMPERAMENT IS HOT

1. *gərəm məgəd͡ʒ*   'hot-tempered'
2. *gərəm mid͡ʒad͡ʒ/svəbʰav*   'short-tempered'
3. *gərəm t̪ʰəvũ*   'to get angry'

This conceptual metaphor becomes evident when an individual's temperament is represented by adjectives of touch. Here, the cognitive approach towards the temperament is the same as that towards the sensation of the mentioned touch-term. Thus, TEMPERAMENT is the target and HOT is the source.

The metaphorical meaning of [*gərəm məgəd͡ʒ*] 'hot brain' is being short-tempered or someone who is angry, and that of [*gərəm mid͡ʒad͡ʒ*] or [*gərəm svəbʰav*] 'hot temperament' is someone who is short-tempered.

Anger is expressed through the metaphorical linguistic expression 'hot' because when something heats up, its particles start to vibrate and there is a constant state of conflict between said particles, which causes this vibration. Anger, too, in most cases, arises from some sort of conflict (of either thought or action, or both).

2.1.2 OBJECTS ARE HOT

4. *gərəm kəpəɖã*   'woolen clothes (clothes that keep one warm)'
5. *gərəm məsalo*   'hot spices (a mixture of spices that generate heat and taste hot)'

This conceptual metaphor becomes evident when physical objects are represented by touch adjectives. Here, the cognitive strategy used to approach material objects is the same strategy used to approach the perception of the aforementioned touch-term. Thus, CLOTHES AND CONDIMENTS are the targets and HOT is the source.

The metaphorical meaning of [*gərəm kəpəɖã*] 'hot clothes' is not that the clothes are hot to touch, that is, they're not the same as heat experienced upon touching hot water. Rather it refers to woolen clothes which provide warmth to the body when it is cold outside. The metaphorical meaning of [*gərəm məsalo*] 'hot spices' is a powdered mixture of certain spices specifically used in Indian cooking, which are hot or spicy to taste and generate heat in the body.

Both are compound words where an adjective (*gərəm* 'hot') combines with a noun (*kəpəɖã* 'clothes', *məsalo* 'spices'). They display a phenomenon of conceptual blending where in

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[*gərəm kəpəɖã*] 'hot clothes' input space 1 is 'hot', input space 2 is 'clothes', vital relation is that of identity, and the compressed space is clothes that keep one warm. And in [*gərəm məsalo*] 'hot spices' input space 1 is 'hot', input space 2 is 'spices', vital relation is cause-effect, and the compressed space is a mixture of spices that produce heat in the body.

2.1.3 ACTION IS HOT

6. *gərəm kərvũ*   'to make someone angry'

This conceptual metaphor becomes evident when actions are represented by touch adjectives. In this case, the cognitive approach to one's action is the same as the cognitive approach to the touch-term in question. Thus, ACTION is the target and HOT is the source.

The metaphorical meaning of [*gərəm kərvũ*] 'to heat up' is to make someone angry. While the prototypical meaning is to heat something up, like heating up water to cook rice in, the metaphorical meaning is to make someone angry. This idiomatic usage points to the metonymic relationship between anger and the subsequent heating up of the body.

2.1.4 PHYSIOLOGICAL STATE IS HOT

7. *gərəm pəɖvũ*   'condiments that give rise to negative effects in the body'

This conceptual metaphor becomes evident when bodily sensations are represented by touch adjectives. Similar to how the aforementioned touch-term feels, the cognitive technique used here to analyze the physiological state is the same. Thus, PHYSIOLOGICAL STATE is the target and HOT is the source.

The metaphorical meaning of [*gərəm pəɖvũ*] 'to feel hot' is to produce heat in the body upon consumption. This is usually used for food items, such as garlic, eggs, etc., which according to Ayurveda, naturally produce heat in the body when consumed. Since these food items produce heat in the body, they are termed hot foods. This heat is not in terms of temperature, rather regarding the harmful effects the consumption of these condiments produces in the body, such as the production of bile which corresponds to fire.

2.2 *ʈaɖʰũ* or '*ʈʰənɖũ*' 'cold, cool'

Prototypically, this tactile term is used for things that are cold to the touch. For instance, [*ʈaɖʰi həva*] which means a breeze that feels cool on the skin, and [*ʈʰənɖũ pɑɳi*] 'cold water' meaning water that is cold to the touch.

The following are the non-prototypical usages of the touch-term:

Jahanvi Shah and Ajay Sarvaiya
Tactile-Terms in Gujarati: A Cognitive Semantic Analysis   50

2.2.1 TEMPERAMENT IS COLD

8. *t^həndũgar d͡ʒevũ*   'a person without fervor'
9. *ʈaɖʰo svəbʰav*   'an easygoing personality'

This conceptual metaphor becomes evident when an individual's temperament is represented by touch adjectives. Here, temperament is approached cognitively in the same way as the aforementioned touch-sensation. Thus, TEMPERAMENT is the target and COLD is the source.

The metaphorical meaning of [*ʈaɖʰo svəbʰav*] 'cold personality' is someone who is easy-going and calm, and this metaphor has a positive connotation, and that of [*t^həndũgar d͡ʒevũ*] 'completely frozen' is a person who is without fervor and this metaphor has a negative connotation.

2.2.2. PHYSIOLOGICAL STATE IS COLD

10. *ʈaɖʰũ pəɖvũ*   'to become calm'
11. *ʈaɖʰũ lohi*   'a state of non-reaction'

This conceptual metaphor becomes evident when bodily sensations are represented by touch adjectives. Here, the cognitive approach towards bodily sensations is the same as that towards the sensation of the aforementioned touch-term. Thus, PHYSIOLOGICAL STATE is the target and COLD is the source.

The metaphorical meaning of [*ʈaɖʰũ pəɖvũ*] 'to become cold' is to become calm and progressively become less angry. Its metonymic implication is that between the body and calm. As one becomes calm and composed, one's body cools down and the heat ebbs out. This is the antithesis of [*gərəm kərvũ*] 'to heat something up.' The metaphorical meaning of [*ʈaɖʰũ lohi*] 'cold blood' refers to a person who doesn't react to anything despite external stimuli.

2.3 *kəʈʰəɳ* or *kəʈʰor* 'hard, not soft'

Prototypically, this tactile term is used for things that are hard to the touch. For instance, [*kəʈʰor pəʈʈʰər*] 'hard rock' is used for a rock that is hard, and [*kəʈʰəɳ d͡ʒəmin*] 'hard land' is used for land that is hard and not easy to dig into.

The following are the non-prototypical usages of the touch-term:

2.3.1 TEMPERAMENT IS HARD

12. *kəʈʰəɳ svəbʰav*   'a strict personality'
13. *kəʈʰor bʰaʃa*   'rude or strong language'
14. *mən kəʈʰəɳ kərvũ*   'to steel oneself'

15. *kəʈʰəŋ t͡ʃʰaʈinũ/kaɭd͡ʒanũ*   'someone of robust character'

This conceptual metaphor becomes evident when an individual's temperament is represented by touch adjectives. Here, the cognitive approach towards the temperament is the same as that towards the sensation of the mentioned touch-term. Thus, TEMPERAMENT is the target and HARD is the source.

The metaphorical meaning of [*kəʈʰəŋ svəbʰav*] 'hard personality' is someone who is very strict, rigid, and inflexible, of [*mən kəʈʰəŋ kərvũ*] 'to make the mind hard' is to steel oneself against and instill courage in oneself during difficulties and hard times, and of [*kəʈʰəŋ t͡ʃʰaʈinũ/kaɭd͡ʒanũ*] 'of hard chest/heart' is someone of strong character with who can withstand and fight against difficult situations and times without losing courage. The metaphorical meaning of [*kəʈʰor bʰaʃa*] 'hard language' is language that is strong, strict, rough, or rude. However, one's language may or may not be an innate part of one's personality. One may not be inherently strict or rude, but they might use that kind of language to show power, assert dominance, or as overcompensation for being cowardly or timid.

In all these instances, the touch-term 'hard' is used in two ways: positive meaning and negative meaning. While being 'hard' in certain situations is considered a good thing, when facing difficulties, at times it has negative connotations when 'hard' is the default. This means that someone is extremely rigid and not adaptable.

2.3.2 OBJECTS ARE HARD
16. *kəʈʰəŋ paɳi*   'hard water (water saturated with minerals)'

This conceptual metaphor becomes evident when physical and abstract objects are represented by touch adjectives. Here, the cognitive approach towards material objects is identical to the sensation of the aforementioned touch-term. Thus, PHYSICAL AND ABSTRACT OBJECTS are the target and HARD is the source.

The metaphorical meaning of [*kəʈʰəŋ paɳi*] 'hard water' is water that is saturated with minerals and is so termed because it is rough and not easy on the hair and skin.

2.3.3 LUCK IS HARD
17. *kəʈʰəŋ ɾekʰa*   'unfortunate, weak luck'
18. *gɾəh kəʈʰəŋ ʈʰəva*   'to be unlucky'
19. *kəʈʰəŋ kəpaɭno*   'someone who is not destined for happiness'

This conceptual metaphor becomes evident when abstract concepts like luck are represented by touch adjectives. Here, the cognitive approach towards luck is similar to the sensation of the touch-term in question. Thus, LUCK is the target and HARD is the source.

The metaphorical meaning of [kəṭʰəŋ rekʰa] 'hard line' refers to the lines on the palm of one's hand. An astrologer may predict one's future based on these lines and if one's future is full of struggles and hardships, one is said to have 'hard lines.' [grəh kəṭʰəŋ ʈʰəva] 'planets become hard' is also based on astrology. One's luck can be predicted via the position of the planets according to one's birth. Since astrology is not a proven science, it is all a game of chance. [kəṭʰəŋ kəpaɭno] 'someone with a hard forehead' refers to a person who is not destined for happiness and is bound to suffer for the better part of their life. All these metaphorical linguistic expressions have negative connotations.

2.4 poʧ͡ũ or nərəm 'soft'

Prototypically, this tactile term is used for things that are soft to touch. For instance, [poʧ͡i d͡ʒəmin] 'soft land' is used for land that is soft and can be easily dug into, and [nərəm ʈvəʧ͡a] 'soft skin' refers to soft and supple skin.

The following are the non-prototypical usages of the touch-term:

2.4.1 TEMPERAMENT IS SOFT
20. *nərəm svəbʰav*   'a timid personality or temperament'
21. *poʧ͡a kaɭd͡ʒanũ*   'a coward'

This conceptual metaphor becomes evident when one's temperament is represented by touch adjectives. Here, temperament is understood in terms of the sensation of the aforementioned touch-term. Thus, TEMPERAMENT is the target and SOFT is the source.

The metaphorical meaning of [nərəm svəbʰav] 'soft temperament' is a person who is timid and passive, someone who doesn't act fast, and that of [poʧ͡a kaɭd͡ʒanũ] 'of soft heart' is a person who is a coward, someone who cannot muster up the courage when needed.

2.4.2 PHYSIOLOGICAL STATE IS SOFT
22. *nərəm paɖvũ*   'to calm (someone) down'

This conceptual metaphor becomes evident when one's physiological state is represented by touch adjectives. Here, the cognitive approach towards one's physiological state is the same as that towards the sensation of the touch-term in question. Thus, physiological state is the target and soft is the source.

The metaphorical meaning of [nərəm pəɖvũ] 'to make (someone) soft' is calming someone, who is angry, down. It refers to the act of placating an enraged person.

2.5 *koməl* 'delicate, soft'

Prototypically, this tactile term is used for things that are soft and delicate to the touch. For instance, [koməl ʈvəʧa] 'soft skin' is used for skin that is soft and delicate. While this word is a synonym of the ones mentioned in the previous section, the connotations and implications vary.

The following are the non-prototypical usages of the touch-term:

2.5.1 TEMPERAMENT IS SOFT

23. *koməl svəbʰav*	'someone with a pleasant personality'
24. *koməl bʰaʃa*	'sweet language'

This conceptual metaphor becomes evident when one's temperament is represented by touch adjectives. Here, the cognitive approach towards one's temperament is the same as that towards the sensation of the aforementioned touch-term. Thus, temperament is the target and soft is the source.

The metaphorical meaning of [koməl svəbʰav] 'soft temperament' relates to a person whose nature or personality is pleasant, a person who is amicable, that of [koməl bʰaʃa] 'soft language' is sweet speech used for polite conversation, However, one's language may or may not be a part of their personality. One may be rude and use sweet language just to get their way or one may actually be soft-spoken.

2.5.2 PHYSIOLOGICAL STATE IS SOFT

25. *koməl ʧ͡iʈʈ*	'someone who is innocent'
26. *koməlaŋgi*	'someone who is delicate'
27. *koməl əvad͡ʒ*	'a sweet voice'

This conceptual metaphor becomes evident when one's physiological or physical state is represented by touch adjectives. Similar to how the aforementioned touch-term feels, the cognitive technique used here to analyze the physiological state is the same. Thus, physiological state is the target and soft is the source.

The metaphorical meaning of [koməlaŋgi] 'soft limbs' is someone who is delicate and is used in a positive connotation, and that of [koməl əvad͡ʒ] 'soft voice' is a voice that is easy on the ears and a pleasant hearing experience. [koməlaŋgi] is a compound word that is formed by joining the adjective *koməl* 'soft' and the noun *əŋg* 'limb.' [koməl ʧ͡iʈʈ] 'delicate mind' is used to

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Language in India www.languageinindia.com **ISSN 1930-2940 22:9 September 2022**
Jahanvi Shah and Ajay Sarvaiya
Tactile-Terms in Gujarati: A Cognitive Semantic Analysis   54

describe someone who is innocent and guiltless. It refers to a person who leads an honest life and has a clear conscience.

2.6 *ɖʰilũ* 'loose, soft'

Prototypically, this tactile term is used for things that are loose or soft to the touch. For instance, [*ɖʰili d͡ʒəmin*] 'soft land' is used for land that is soft and loose, and [*ɖʰilã kəpɖã*] 'loose clothes' is used for clothes that are loose to fit and airy.

The following are the non-prototypical usages of the touch-term:

2.6.1 TEMPERAMENT IS SOFT

28. *ɖʰilũ mukvũ*   'to give free rein'
29. *ɖʰilũ t͡ʃəriʈrə*   'someone of immoral character'

This conceptual metaphor becomes evident when one's temperament is represented by touch adjectives. Here, the cognitive approach towards one's temperament is the same as that towards the sensation of the aforementioned touch-term. Thus, TEMPERAMENT is the target and SOFT is the source.

The metaphorical meaning of [*ɖʰilũ mukvũ*] 'to let loose' is giving someone free rein to do as they please, going so far as to bless them and oversee their actions, and that of [*ɖʰilũ t͡ʃəriʈrə*] 'loose character' is someone with bad moral qualities, usually someone with a perceived history of extra-marital romantic relationships.

2.6.2 PHYSIOLOGICAL STATE IS SOFT

30. *ɖʰilo əvad͡ʒ*   'a weak voice'
31. *ɖʰila pəɖvũ*   'to become weak'
32. *ɖʰila hoʈʰ kərva*   'to be on the brink of tears'

This conceptual metaphor becomes evident when one's physiological or physical state is represented by touch adjectives. Here, the cognitive approach towards one's physiological state is the same as that towards the sensation of the aforementioned touch-term. Thus, PHYSIOLOGICAL STATE is the target and SOFT is the source.

The metaphorical meaning of [*ɖʰilo əvad͡ʒ*] 'soft voice' is a weak voice, usually when one is sick; that of [*ɖʰila pəɖvũ*] 'to become soft' is to become weak due to external stimuli like disease, immense pressure, tension, or stress, or bad news, and that of [*ɖʰila hoʈʰ kərva*] 'to loosen lips' is one who is on the brink of tears due to being scolded, loss, or some negative event that affected them greatly.

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Language in India www.languageinindia.com **ISSN 1930-2940 22:9 September 2022**
Jahanvi Shah and Ajay Sarvaiya
Tactile-Terms in Gujarati: A Cognitive Semantic Analysis   55

Here, both *komǝl* 'soft, delicate' and *ɖʰilo* 'soft, loose' are used for the noun *ǝvadʒ* 'voice'. Although both these metaphors translate to "soft voice" in English, they both have different connotations in Gujarati. [*komǝl ǝvadʒ*] 'soft voice' is used for someone who has a sweet and pleasant voice with a positive connotation, whereas [*ɖʰilo ǝvadʒ*] 'soft voice' is used for someone who has a weak voice, mostly due to reasons of health.

3. Conclusion

The purpose of the cognitive-semantic analysis of tactile terms is to investigate the various conceptualizations of tactile terms in Gujarati. This paper discussed the analysis of six tactile terms used in the language. Initially, the prototypical usage of the tactile terms is discussed, followed by their extended meanings through conceptual metaphors. Their metaphorical usage highlighted the perception of language users toward these tactile sensations and the conceptualization of the tactile terms.

According to the analysis of the data in this paper, we can make a few generalizations regarding the tactile terms. They are as follows:

Anger is hot and calmness is cold.
Strict is hard and easy-going is soft.
Rude is hard and polite is soft.
Courage is hard and cowardice is soft.

If we suggest a cover term for tactile terms, like 'taste' for taste terms, we can construct conceptual metaphors with different source domains of tactile terms and homogeneous target domains which are common in all the tactile terms that have been discussed in this paper. For instance, if we use the term 'tactility' for tactile terms, we can construct the following conceptual metaphors:

TEMPERAMENT IS TACTILITY
PHYSIOLOGICAL STATE IS TACTILITY
PHYSICAL ACTION IS TACTILITY

However, no such term is available for tactile terms at the moment. This paper provides insights into the impact of human perception of touch as a sense and its importance in conceptualizing one's immediate environment. We further encourage conducting investigations into touch-related terms.

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Language in India www.languageinindia.com **ISSN 1930-2940 22:9 September 2022**
Jahanvi Shah and Ajay Sarvaiya
Tactile-Terms in Gujarati: A Cognitive Semantic Analysis   56

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