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The exploration of the meaning of body part terms in Batak Toba language: Natural Semantic Metalanguage approach

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ABSTRACT

Since everyone shares a common physiology, the body is an obvious place to look for universally shared aspects of meaning. Cross-linguistic studies, however, show that there is a great deal of variation in the expansion of terms for human body parts. This study explores the construction of body parts terms on Batak Toba by employing a natural semantic metalanguage (NSM) analysis. This research was done through qualitative descriptive approach within the framework of Natural Semantic Metalanguage (NSM) analysis. Data collection involved interviews with native speakers, a review of linguistic literature, and comparison with existing semantic studies. The results reveal that there is no terminology for Adam's apple and some terms refer to different parts of the body even though their location is close to each other such as *hurrum* is for temple, cheeks, and jaw and *siholtingon* is for hips and waist. The construction of the body parts named in Batak Toba dominantly is formed by the shape, location, and function of the body parts themselves. This finding proves how speakers of the Batak Toba language had considered very considerably in forming the body parts names long before the presence study of the semantics of body parts. Further research should be conducted to preserve the traditional language for local wisdom.

KEYWORDS: body, parts, term, Batak Toba, semantics, NSM

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Introduction

The Natural Semantic Metalanguage (NSM) approach, developed by Anna Wierzbicka and colleagues, provides a framework for analyzing linguistic meaning across cultures (Durst, 2004). It posits a universal set of cognitive primitives lexicalized in all languages, which can be combined to form a metalanguage for semantic analysis (Drobnak, 2009). NSM has been applied to various domains, including the semantics of physical qualities and body-part terms associated with emotions (Goddard & Wierzbicka, 2007; Hasada, 2002). Research shows that concepts of physical qualities are rooted in embodied human experiences rather than objective properties (Goddard & Wierzbicka, 2007). In Japanese, body-part terms like *kokoro, mune, hara, ki,* and *mushi* are used to express emotions and mental states (Hasada, 2002). The NSM approach allows for clear explication of concepts using simple words and grammar, facilitating cross-linguistic comparisons and revealing semantic similarities and differences between languages (Hasada, 2002; Drobnak, 2009).

Research on the semantics of body part terms reveals complex patterns of usage and extension across languages. While body part terms can denote object parts through analogy in some languages like Juchiteco, they may not encode spatial relations (Pérez-Báez, 2012). Cross-linguistic studies show recurring patterns of semantic extension influenced by embodied cognition and shared culture, particularly in domains like emotions, knowledge, and social interactions (Kraska-Szlenk, 2020, 2014). Terms like "heart," "face," and "eyes" often develop figurative meanings related to emotional states across languages (Kraska-Szlenk, 2014). However, language-specific features and cultural factors can lead to unique semantic changes (Kraska-Szlenk, 2020). Interestingly, knowledge of the human body may constitute a distinct semantic domain, as evidenced by a case study of a patient with semantic dementia who retained body knowledge despite deficits in other semantic categories (Coslett et al., 2002).

Given that all humans share a common physiology from head to toe, it makes sense to look for aspects of the body that are universally recognized as meaningful. However, cross-linguistic analysis shows that the extensions of terms referring to human body parts vary greatly. The first startling fact is that not every language has a word for body. Though no other word in the language does, the Tidore (Papuan, Indonesian language) word for flesh does not refer to the entire body. Tidore speakers must either use the Indonesian word "badan", which means "body," or speak non-literally by using the Tidore word "mansia", which literally means "person, human" (Van Staden, 2006). Then the terms "belly" and "excreta" are interchangeable in Jahai (Mon-Khmer, Malaysia/Southern Thailand (Burenhult, 2006). In Thaayoore (Pama-Nyungan, Australia), pam-mini is the word whose extensional range is most similar to the English word body. However, this goes beyond just the physical form. It also refers to a wide range of other related ideas, like people's tracks, voices, and shadows, all of which are indefinable in the English language when expressed with the word "body" (Gaby, 2006). While in Lao, a Southwestern Tai language spoken in Laos, Northeast Thailand, and Northeast Cambodia, there is no equivalent word referring to the shoulder, but this part of the body is named baal or baal lajl, which means the flat or horizontal area between the base of the neck and the shoulder joint (Enfield, 2006). Then Terrill (2006) conducted an investigation and discovered the fact that in the Lavukaleve language (East Papua; Solomon Islands) the word 'vatu' is referring to both head and face. When Sharifi & Karimi-pour (2012) looked into the naming of body parts in Kurdish (Iran), they discovered that the word "daem" refers to the lips and mouth. Subsequently, Pérez Báez (2019) discovered that the word "deche," which means "neck" also refers to the upper back while researching the languages of Mesoamerica (Mexico). Additionally, the most recent study was conducted in Japanese utilizing Huisman's et al., Natural Metalanguage Semantics (MSA) theory approach (2021). The results of this study demonstrate that speakers of Standard Japanese do not differentiate between "chin" and "jaw", and speakers in the Ryukyuan region do not distinguish between "face" and "cheeks". The study then expanded to more languages (Ahlner, 2008; Iskandar et al., 2018; Levisen, 2015; Ponsonnet, 2014; Riemer, 2010; Skerritt, 2021; Tjuka, 2021; Wierzbicka & Goddard, 2018). Those important discoveries Page 2

demonstrate that languages do not all treat something as fundamental and universal as the human body in the same way.

Batak Toba, spoken on Samosir Island located in the middle of Toba Lake and known as Caldera Lake. Toba is located in the North Sumatra province of the island of Sumatra in western Indonesia, within the Barisan Mountains. One of the most amazing volcanic formations from the Quaternary period of geologic time is Indonesia's Toba Caldera. Important insights into the physical volcanology of silicic calderas and supereruptions, the geochemical evolution of silicic magma bodies, and the geophysical imaging of active sub-volcanic systems have been gleaned from its rich history of research spanning more than a century (Chesner, 2012; Sidauruk & Butar-butar, 2013). Remarkably, long ago, the Batak Toba ancestors had a very special perspective on body terms and it adheres to the body of semantics principle articulated by Wierzbicka (2007). In actuality, the preservation of this language is urgently needed, as evidenced by this research.

The Australian semanticists Anna Wierzbicka, Cliff Goddard, and others developed the Natural Semantic Metalanguage (NSM), a conceptual approach to linguistic and cultural analysis (Goddard, 2002; Goddard & Wierzbicka, 2014; Peeters & Wierzbicka, 1998). The NSM approach provides a toolkit for examining meaning across cultures and eras and is based on in-depth research into the universal core of all languages. NSM research on the body's semantics has discovered that the semantic primes BODY, PART, PLACE, SIDE, INSIDE, BELOW, ABOVE, ONE, TWO, and NEAR are particularly effective when it comes to body word configuration and some kinds of semantic molecules seem to be useful.

In a thorough meta-analysis of linguistic research on the human body, Wierzbicka's (2007) states that body- parts naming or the words related to the body at least should meet three specifications namely (1) location: it is also known as topography. The body- terms are based on their place, (2) shape, the body words are constructed based on their shape and (3) function or internal logic. The body labeling is based on how they are perceived to function and how they relate to social norms or cultural concepts. Based on the background, this study is designed to explore multiple research inquiries including

- 1. Are all bodily parts in Batak Toba given names?
- 2. Is there any absence of a word referring to the body parts in Batak Toba?
- 3. How does Batak Toba lexicalize the body and its parts?

Method

This study employs a qualitative descriptive research approach to examine the meaning of Batak Toba body part terms through the Natural Semantic Metalanguage (NSM) framework. Data were collected through native speaker interviews, linguistic literature review, and comparison with existing semantic studies on body part terminology in other languages. The primary data source includes the Batak Toba lexicon for body parts, analyzed to identify semantic primes and cultural scripts as defined by the NSM approach. The analysis focused on understanding how specific Batak Toba terms relate to shape, location, and function, shedding light on culturally embedded perceptions of the human body. To ensure reliability, triangulation was achieved by cross-referencing native speaker inputs with semantic interpretations from linguistic experts in Batak Toba culture. Data were coded and categorized according to the NSM framework's semantic components, such as shape and functional significance. This method facilitated insights into unique terminologies and differences in Batak Toba body part conceptualization, emphasizing local knowledge and linguistic diversity.

Results

A. Body terms on Batak Toba are displayed in the table below

After the data were collected, the results are presented as the followings:

Table 1: Body Part Terms on Batak Toba
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Batak Toba	English
Simajunjung	Head
Sitabulan	Crown
Sitabolan	Part of hair
Simandopak	Forehead
Halisung	The hairline on the forehead
Sitarupon	Hair
Simanganggo	Nose
Lubangi simanganggo	Nostril
Salibon	Eyebrow
Simalolong	Eyes
Imbulu ni simalolong	Eyelashes
Anak ni simalolong	Eyeball
Bohi	Face
Salop	Jaw joint
Panamboli	The ribs of the face are at the same level as the neck
Hurum	Cheeks
Hurum	Temple
Hurum	Jaw
Panopano	Acnes
Sitalbeon	Lips
Simangkudap	Mouth
Holahola	Oral Cavity
Simarhuat	Tounge
Ipon	Teeth
Ngadol	Molar
Bortuk	Canine tooth
Gosi	Gum
Osang	Chin
Rungkung	Neck
-	Adam's Apple
Aruaru	Throat
Simanangi	Ear
Landong	Mole
Sakkelak	Dimples
Mise	Moustache
Bauk	Beard
Bukbuk	Body hair

Neck Stem
Back
Shoulder
Armpit
Hand
Right hand
Left hand
Upper arm
Lower arm
Palm
Hand's hair
Goosebumps
Wrist
Elbow
Chest
Boobs
Nipples
Navel
Belly fat
Delly lat
Stomach
Ribs
Fingers
Thumb
Index finger
Middle finger
Ring finger
Little finger
Nail
Bone
Body
Body joints
Shoulder
Waist
Hips
Tendon
Tail bone
Butt
Anus
Male genital
Female genitalia
Womb
Foreskin
Genital hair

Binsil	Clitoris
Duguldugul	Knee
Binggarbinggar	Knee cap
Bulung ni simanjojak	Sole
Pargolanganni simanjojak	Ankle
Simanjojak	Feet
Simanjojak siamun	Right foot
Simanjojak sihambirang	Left foot
Halanghang	Between legs
Tambihul	Heel
Bogas	Footprints
Bitis	Calf
Simalolong ni ari simanjojak	Ankle
Tonggong	Big veins
Lambiak	Flesh
Talektek, talaktak	Small body
Tambos	Strapping
Gondong	Distended
Hingking	Skinny
Lihi	Thin
Halak	Body figure
Golmok	Plump
Jagur	Curly hair

The table 1 presents an inventory of body external part terminology in Batak Toba. There are some specific findings on this inventory. First off, there isn't a single mention of Adam's apple. The term "rungkung" refers exclusively to the neck among Batak Toba speakers. Secondly, three distinct body parts are referred to by a single term. *Hurum* means temple, checks, and jaw. Even though those parts are considered to be part of the face, their specifications are completely different. Last but not least, the terms "siholtingon" and "hip" are interchangeable. As the sentences below demonstrate, it is clear how those terms that refer to various body parts differ from one another.

(1) Siholtingon na hansit dungkon manasapi duhut di hauma

/waist/ /his/ /hurts/ /after/ /hoeing/ /weeds/ /in/ /the rice field/ His waist hurts after hoeing weeds in the rice field

(2) Andorang ibana manangi ende, sangombas siholtingon na hamutur

/When/ /she/ /heard/ /the song/ /immediately/ /hips/ /her/ /swayed/ When she heard the song, her hips immediately swayed

The same terms are used to refer to two distinct body parts in both sentences. In the first sentence, the word *"siholtingon"* refers to the waist, but in the second, it refers to the hips.

B. Batak Toba Terminology for Body Parts

In Batak Toba, body parts are primarily named according to three types of construction: names based on the shape, location, and function of the body parts. Indeed, these formulations align with a meta-analysis of language studies concerning the human body (Wierzbicka, 2007). The following part is an analysis of the various construction types.

a. The Shape of Body Parts

The table 2 below illustrates how body parts are named in this language according to the shapes that the individual boy parts own.

Batak Toba	Stem	Meaning	English
Sitarupon	Tarup	Palm fiber	Hair
Sitabulan	Bulan	Moon	Crown
Landong	Lindang	Stain	Mole
Bauk	Buk	Uncountable	Body hair
Sitalbeon	Talbe	Askew	Lips
Holahola	Hola	The soft part at the top of the fish's mouth	Oral cavity
Siubeon	Parbue	Rice	Stomach
Lambiak	Lambak	Bottom layer	Belly fat
Sasap	Sasap	Triangular	Shoulder
Siholtingon	Gonting	Narrow and like scissors	Waist, hips
Suhisuhi	Suhi	Angle	Elbow
Sirimpuron	Rimpus	Straight	Fingers
Situalang	Tualang	A kind of tall and straight wood where the bees' nest.	Middle finger
Ihurihur	Ihur	Tail	Tail bone
Situmorjok	Morjok	Stand up straight	Cock
Bortian	Borti	Рарауа	Womb
Duguldugul	Dugul	Lump	Knee
Binggarbinggar	Binggar	Open widely	Knee cap

Table 2: Body Parts Naming Based on Their Shape

The naming of body parts according to their shape is displayed in the data above. Some of the terms above have semantic explanations that can be expressed in Natural Semantics Metalanguage (NSM) in the following ways:

- (3) sitarupon (hair)
 - a) one of someone's body
 - b) part of someone's head [m]
 - c) It is on the scalp [m]
 - d) It is black [m]
 - e) It is like a feather [m]

The meaning analysis of *sitarupon* above consists four components. The top component labelled as (a) is a partonomic component. Then followed by hierarchy one as it can be seen on (b) then topography component (c) 'it is on the scalp [m], and shape aspect as the origin of the word "*sitarupon*" on (e) 'It is like a feather [m] and (d) 'it is black [m]. Page **7**

(4) *sirimpuron* (fingers)

- a) part of someone's body
- b) part of someone's hand [m]
- c) they are on one side of the hand
- d) they are straight [m]
- e) they have joints [m], five parts for each hand [m] and foot [m]
- f) they can move according to someone's wishes
- g) because of having these parts, someone can do many things they want [m]
- h) because someone's body has these parts; someone can touch whatever they like[m]

From the data above, the analysis shares the partonomy component 'part of someone's body', the hierarchy component (b), and the spatial orientation component (c). As it is stated in the previous table, the origin of *sirimpuron* is *rimpus* and it means straight that is why Batak Toba speakers name those parts as *sirimpuron*. The analysis of their shape is stated on (d) (e) as well as the internal logic component known as the function given on (f) (g) (h).

b. The Location of Body Parts

Table 3: Body Parts Naming Based on Their Location

Batak Toba	Stem	Meaning	English
Simandopak	Dompak	Facing in the front	Forehead
Siamun	Parsiamun	On the right side	Right hand
Sihambirang	Hambirang	On the left side	Left hand

Here are some data displayed as the representative of semantic analysis based on NSM by engaging the semantic primes and semantic molecules as follows:

- (5) Simandopak (forehead)
 - a) part of someone's head [m]
 - b) it is on the front side between the hair [m] and the eyebrows [m]
 - c) it is part of the face [m], above all other parts of the face [m]
 - d) it is parting between the hair [m] and the face [m]
 - e) this part forms the facial structure [m]

Simandopak originated from *parsiamun* whose meaning is facing in front as analyzed on (b) 'it is on the front side between the hair [m] and the eyebrows [m]' and it is the spatial semantics, as well as the hierarchy component (a)' part of someone's head [m]' and (c)' it is part of the face [m], above all other parts of the face [m]', and lastly the internal logics component is seen on the analysis of (d)' it is parting between the hair [m] and the face [m]' and (e)' this part forms the facial structure [m]'.

c. The Function of Body Parts

The term body parts in Batak Toba is also commonly formed by the function owned by each part and then constructed by the additional prefix *si*- and this prefix is characterized by the high level of politeness of speakers to whom they talk. The body parts names constructed based on their function are shown on the table below:

Table 4: Body Parts Naming Based on Their Function

Batak Toba	Stem	Meaning	English
Simanjujung	Junjung	To hold on head	Head
Sitabolan	Bolan	To part	Hair part
Simalolong	lolong	To see	Eyes
Simanganggo	Parnianggoan	To smell	Nose
Simanangi	Manangi	To hear	Ear
Simangkudap	Manghudap	To eat	Mouth
Sitairon	Tarus	To squeeze the palm sugar	Boobs
Sitangkingon	Tangking	To carry	Shoulder
Sipangido	Mangido	To ask	Hands
Sipanudu	Panudu	To point	Index finger
Sijagoa	Jagoa	To keep	Ring finger
Simanjojak	Jojak	To step	Feet
Siamburuk	Ambu	To dump	Butt

The body parts are lexicalized in the above table according to their respective functions. By using the NSM approach, the following terms are defined:

- (6) *sitangkingon* (shoulders)
 - a) two parts of someone's body
 - b) they are on one side of the body
 - c) the face [m] is not on this side
 - d) they are on right [m] and left [m] on the side of the body
 - e) these two places are near the neck [m], on two sides of the neck [m]
 - f) the top [m] parts of the arms[m] are parts of these two parts of the body
 - g) because these parts are big places, someone can put [m] something on top of that part of the body [m]

The analysis of *sitangkingon* above shows many components explained. Firstly, the hierarchy component is shown in the analysis (a) two parts of parts of someone's body. Then, the topography aspects are found on (b)' they are on one side of the body', (c)' the face [m] is not on this side', (d)' they are on right [m] and left [m] on the side of the body, (e)' these two places are near the neck [m], on two sides of the neck [m]', and (f)' the top [m] parts of the arms[m] are parts of these two parts of the body'. The last component is internal logic stated in (g)', because these parts are big places, someone can put [m] something on top of that part of the body [m]'. This component is in line with the origin of *sitangkingon* namely *tangking* whose meaning is to carry. Below is another body part term that was found through NSM analysis.

(7) *simangkudap* (mouth)

- a) one part of someone's body
- b) one part of this part of the body is on one side of the head [m]
- c) another part of this part of the body is the place inside the head [m]
- d) this part is where the tongue and teeth are found [m]
- e) when people want things of some kind to be inside the body, they do something with this part of the body
- f) when people say something to other people, this part of the body moves

Simangkudap which is originated from *manghudap* refers to mouth. *Manghudap* denotes with to eat. What function of the mouth given is described in the analysis (e)' when people want things of some kinds to be inside Page **9**

the body, they do something with this part of the body and another function also described in (f)' when people say something to other people, this part of the body moves'. The hierarchy aspect is found on (a)'one part of someone's body while (b)'one part of this part of the body is on one side of the head [m], (c)' another part of this part of the body is the place inside the head [m], and (d)' this part is where the tongue and teeth are found' are categorized on the topography aspects.

Conclusion and Suggestions

Based on the findings of an investigation on Batak Toba's body part terms, it is discovered that there is an absence of Adam's apple terminology. The term *hurrum* is referred to three different parts namely temple, checks, and jaw. Batak Toba speakers consider these three parts are still located on the face that's why there is no specific name for them. It occurs as well to *siholtingon* pointing on waist and hips. The construction of the body parts named in Batak Toba dominantly is construed by the shape, location, and function of the body parts themselves.

This study highlights the rich cultural insights embedded in the Batak Toba language's body part terms, suggesting several areas for further exploration and preservation. Future research should expand to other indigenous languages in Indonesia, comparing body part terminologies to understand cultural nuances and commonalities across linguistic groups. Additionally, documenting these terms more comprehensively could support cultural preservation efforts, providing valuable resources for language revitalization and educational materials. Engaging local speakers and cultural experts is essential to capturing authentic interpretations and ensuring accuracy. Finally, creating collaborative initiatives with linguists, educators, and community leaders would help integrate these linguistic insights into language education, fostering appreciation for local wisdom. Such efforts could contribute significantly to preserving the Batak Toba language, promoting cultural heritage awareness, and encouraging pride in indigenous knowledge systems.

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Biographies

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