

Unripe Meanings: A Natural Semantic Metalanguage Analysis of Adjectival Semantics in Batak Toba

Dairi Sapta Rindu Simanjuntak¹, Dwi Widayati^{2*},
T. Silvana Sinar³, Mhd Pujiono⁴

dairisapta@students.usu.ac.id¹, dwiwidayati@usu.ac.id²,
tengkusilvana@usu.ac.id³, mhd.pujiono@usu.ac.id⁴

* Corresponding Author

Universitas Sumatera Utara^{1,2,3,4}

Abstract

*This study explores the semantic structure of adjectives denoting the condition 'unripe' in fruits within the Batak Toba language using the **Natural Semantic Metalanguage (NSM)** framework. The research aims to describe the core semantic components underlying the lexical meanings of *tata*, *bibi*, *mongkol*, and *tangkual*, which are used by Batak Toba speakers to describe different stages of fruit maturity. Data were collected through interviews with five native speakers who are elderly farmers in Dairi Regency, North Sumatra. The analysis reveals that each lexicon embodies distinct sensory, temporal, and evaluative components representing the community's perception of fruit development. The adjective *tata* refers to a fruit that is physiologically large but immature; *bibi* describes an early stage of growth; *mongkol* indicates transitional maturity; while *tangkual* designates a durian that falls before complete ripening. All lexicons share the primitive concept **SOMETHING NOT LIKE A RIPE FRUIT**. The study concludes that the Batak Toba language encodes ecological and cognitive knowledge through subtle lexical differentiation, illustrating how language reflects agrarian experience and local environmental awareness.*

Keywords: *semantics adjective, Batak Toba, fruit maturity, Natural Semantic Metalanguage, unripe meaning*

Introduction

Language not only functions as a means of communication, but also as a means of representing the knowledge, experiences, and cultural values of the speaking community (Khrisnantara et al., 2017) Through language, humans interpret the world around them and categorize sensory experiences into distinctive conceptual forms (Simanjuntak, 2024) Each language has characteristics that include aspects of form, function, and meaning. These three aspects are the focus of interesting linguistic studies, especially in semantic analysis. Through this analysis, it can be identified the differences in meaning inherent in each lexicon, although in general these lexicons are in the realm of similar meanings (Rahman, 2020) In semantic studies, the meaning of adjectives is often explained through the lexicon or lexical meaning of the adjective itself, rather than by referring to other lexical details that are semantically more elementary. This kind of approach often results in representations of meaning that are not explicit, tend to be ambiguous, and repetitive in their explanations (Mulyadi, 2000a; Pierce in Saeed, 2003).

One of the interesting aspects of the lexical system is how a language expresses the state or condition of an object, for example, through adjectives that describe sensory qualities such as color, taste, texture, and level of maturity. Terms that refer to the condition or nature of the fruit, such as 'unripe' are not just physiological descriptions, but also a reflection of local perceptions. In the Batak Toba speaker community, for example, the condition or state of 'unripeness' in fruit lexically contains elements of color, texture, taste, harvest time, and implications of readiness to be consumed or sold. An analysis of adjectives that refer to these circumstances provides a window into understanding how language represents local agrarian and sensory experiences.

Until now, research on the meaning of adjectives in the Toba Batak language is still relatively limited. Existing studies generally focus on morphological forms, phrase structures, or syntactic functions, while the semantic and conceptual dimensions have not been touched on. In fact, to understand the characteristics of regional languages such as Batak Toba, semantic analysis has an important role in revealing the way of thinking and the way of categorizing the speaker to reality. The analysis of the lexicon of the adjective of fruit conditions, especially the adjective 'unripe', is a strategic way to understand the relationship between language, sensory perception, and agrarian culture. Because many categories of adjectives show meanings that are not explicit and tend to rotate, so they are often used incorrectly by the language user community (Rosa, 2018; Munandar & Darmayanti, 2020). Therefore, a theoretical approach is needed that is able to decipher the meaning down to the most basic semantic units. In semantic studies, determining the meaning of a lexicon requires an understanding of the semantic structures that make it up in a systematic and detailed manner. That is the basis for the birth of the Natural Semantic Metalanguage (NSM) theory (Rahardian, 2021).

Within a theoretical framework, **the NSM** introduced by Anna Wierzbicka and further developed by Cliff Goddard, provides a strong methodological foundation for describing lexical meaning in depth and across languages (Wierzbicka, 1996a). NSM departs from the assumption that all languages have a number of universal basic meanings (semantic primes) that can be used to define other meanings systematically. This theory avoids

paraphrasing that is technical or ethnocentric in nature and instead focuses on the exploration of meaning as understood by native speakers. NSM can systematically represent various types of meanings contained in speech, including lexical meanings, illocution, and grammatical meanings. With such coverage, NSM offers a comprehensive and applicable semantic analysis framework in a variety of linguistic contexts (Putri et al., 2019).

In the last ten years, the NSM approach has been widely used to analyze the lexicon in regional languages in Indonesia (Ariana & Sulastra, 2019), Balinese throwing verbs; Javanese cooking verbs (Rahman, 2020); and Arabic creating verbs (Harahap, 2024). These results show that MSA/NSM is effective in uncovering the structure of meaning composed of local experiences. Therefore, the application of NSM to the lexicon of the adjective 'unripe' in fruit in the Toba Batak language is expected to accurately describe how local speakers understand these natural conditions within their own cognitive and cultural frameworks.

Conceptually, the adjective 'unripe' in Batak Toba not only expresses the physiological state of the fruit, but also contains sensory dimensions (color, taste, texture), temporal (process towards ripeness), and evaluative (worthy/unfit for consumption). For example, in people's assessments of guava, bananas, or durians, 'unripe' refers to a combination of visual perception (skin color), touch (hard texture), taste (sour or bitter), and practical experience (not yet harvestable). Each of these elements of perception is then represented linguistically in different adjectives.

The ecological context of Dairi Regency, which is one of the main areas of Toba Batak speakers, strengthens the relevance of this research. This area is known as an agricultural area with fruit commodities such as bananas, durians, and avocados. The existence of local terms that describe the level of ripeness of fruit reflects the close relationship between language, environment, and people's life experiences. Therefore, the study of the adjective 'unripe' cannot be separated from the ecological context and people's habits in recognizing and assessing plant traits.

Using the MSA approach, this study will decompose the meaning of the adjective 'unripe' in fruit in the Toba Batak language into components of semantic primes such as SOMETHING, YET, GOOD, CAN, EAT, HAPPEN, and TIME. Through semantic explanations, it is hoped that a representation of meaning that reflects the way Toba Batak speakers understand the phenomenon of 'unripe' naturally and culturally. This approach also allows comparisons with other languages, so that the results of the research can contribute to the mapping of the semantic typology of adjective conditions in the languages of the archipelago. Theoretically, this research will enrich the study of descriptive semantics in Indonesia, which is still dominated by structural and morphosyntactic approaches. Practically, this research contributes to the documentation and revitalization of the Toba Batak language through the description of lexical meanings that are firmly rooted in ecological experiences. In addition, the results can be the basis for the development of a thematic dictionary based on natural semantics that contains the categories of agricultural lexicon and fruit conditions.



Thus, the research entitled "Unripe Meanings: A Natural Semantic Metalanguage Analysis of Adjectival Semantics in Batak Toba" aims to explain the meaning of adjectives, especially the nature or condition of 'unripe' fruit in the Toba Batak language. The adjective 'unripe' nature or state in the Toba Batak language is understood as a lexeme that descends from many other words. The variation of the adjective 'unripe' condition in fruit in this language varies depending on the state and type of fruit. Because there are several variations of the lexicon to describe this condition, which results in many Toba Batak speakers make mistakes in the use of the lexicon. Based on this explanation, this research has a high theoretical and empirical urgency. Theoretically, this study tested the cruising power of MSA in interpreting the meaning of natural conditions in local languages. Empirically, this study reveals the way the Toba Batak people understand and structure the agrarian experience through language, especially in describing the state of 'unripe' fruits. The results of the research are expected to enrich the semantic treasures of ethnic languages and increase the knowledge of the Toba Batak language-speaking community to be able to distinguish the meaning of each lexicon down to the most core and detailed concepts.

Method

The source of this research data was obtained through interviews with informants who speak the Toba Batak language. Some of the criteria for informants are at least 60 years old, native speakers of Toba Batak, domiciled in the village, working as a farmer, and physically and spiritually healthy. A total of 5 informants were designated as the source of data for this research. Data collection is carried out by the technique of listening and being able to (Sudaryanto, 2015). The data collection step was carried out by an unstructured interview technique to obtain 'unripe' adjective lexicon data on fruit. Data analysis was carried out by describing the explanation of the adjective 'unripe' using MSA theory (Wierzbicka, 1996). This theory will decompose the original meaning of each complex lexicon into more detail and simplicity.

I-ME, YOU, SOMEONE, SOMETHING-THING, PEOPLE, BODY	substantives
KIND, PART	relational substantives
THIS, THE SAME, OTHER-ELSE	determiners
ONE, TWO, SOME, ALL, MUCH-MANY, LITTLE, FEW	quantifiers
GOOD, BAD	evaluators
BIG, SMALL	descriptors
KNOW, THINK, WANT, DON'T WANT, FEEL, SEE, HEAR	mental predicates
SAY, WORDS, TRUE	speech
DO, HAPPEN, MOVE, TOUCH	actions, events, movements, contacts
BE (SOMEWHERE), THERE IS, BE (SOMEONE)'S, BE (SOMEONE/SOMETHING)	location, existence, possession, specification
LIVE, DIE	life and death
WHEN-TIME, NOW, BEFORE, AFTER, A LONG TIME, A SHORT TIME, FOR SOME TIME, MOMENT	time
WHERE-PLACE, HERE, ABOVE, BELOW, FAR, NEAR, SIDE, INSIDE	space
NOT, MAYBE, CAN, BECAUSE, IF	logical concepts
VERY, MORE	intensifier, augmentor
LIKE-WAY-AS	similarity

Weirzbicka and Goddard, 2007

Findings and Discussion

Based on the results of the interviews conducted, the 'unripe' adjective lexicon in the Batak Toba language was obtained as many as four lexicons. The four adjective data are *tata*, *bibi*, *mongkol*, and *tangkual*. The adjective 'unripe' in the Toba Batak language has the original meaning of 'SOMETHING' and is polygamous with 'LIKE-WAY-AS', and its constituent elements are 'something', the 'see' element, the 'not' element, and the 'like' element.

a) *tata*

The lexicon *tata* in the Batak Toba language refers to the condition of a fruit that has grown large but has not yet entered the ripening phase. Fruits in this state are still firm, not sweet, and do not exhibit their characteristic aroma. In the classification of plant growth stages, this condition lies between the formation and ripening phases. Typically, *tata* fruits have a high starch content and low sugar levels, with a dense and hard texture.

This lexicon is used to determine strategic harvest timing when fruits are intended for storage or ripening. For example, bananas, guavas, or papayas harvested during the *tata* phase can last longer during long-distance shipping. Physiologically, the *tata* condition reflects a plant that is still synthesizing nutrients, although physically the fruit appears

mature in terms of size and shape. The fruit's color may have partially changed, but it has not yet reached organoleptic maturity.

Dang boi buaton apokat i ala tata dope
[ADV] [ADV] harvested avocado [PRO] [ADV] [ADV]
Cannot be picked/harvested the avocado because *tata* still
The avocado is not yet ready to be harvested because it is still *tata*.

Based on the explanation and examples of the lexicon's usage in the sentences above, it is evident that the lexicon *tata* carries an original meaning of 'SOMETHING' and is polysemous with 'LIKE', while its exponent is expressed as 'X is something'. To gain a deeper understanding of this lexicon, the following explication is presented:

Explication of *tata*

- Something like this can happen to a living thing, such as something that grows on a tree.
- A person might look at X and think like this:
- This thing is like a fruit
- But right now, it is not like a ripe fruit
- This fruit cannot yet be eaten with the usual pleasant taste
- Its taste is not sweet
- Inside, it is still hard
- There is no pleasant smell like that of a ripe fruit
- This fruit cannot yet be eaten
- People will say, "This fruit is still *tata*"
- Therefore, people will think to leave it for a while

b) *bibi*

The lexicon *bibi* in the Batak Toba language is the second adjectival variant of the 'unripe' adjective lexicon. This adjective refers to the condition of rice that is still in the early growth stage of the developing grain, particularly during the transition phase from flowering to grain formation. At this stage, the panicle has begun to emerge from the stem, and the structure of the developing grain starts to form, but has not yet shown signs of seed filling. Rice grains in this condition are still soft, translucent, and when pressed, release a white or clear liquid, indicating that the endosperm tissue has not yet fully developed.

Visually, the grain color is usually light green with a pointed tip that has not thickened. This phase is critical in the rice growth cycle as it determines the quality and quantity of seed filling in the next stage. The *bibi* condition can be identified by gently touching the grain and observing the panicle structure, which is not yet compact or full. The use of this lexicon specifically refers to the maturity status of rice grains that have not yet reached the filling phase. This term is used to distinguish the initial stage of yield formation from the mature or harvest-ready phase. Its main focus is on physiological indicators of grain development, not on quality assessment, but rather as a marker of an unripe growth phase not yet ready for harvest. In other fruits such as guava, mango, and banana, this lexicon is also commonly used to describe the condition of young fruit, recognizable by the shiny skin color. Additionally, this condition is marked by the

presence of flower remnants at the tip or bud of the fruit. Below is an example of how this lexicon is used in a sentence:

Bibi dope antajau i alana marhillong dope lakkatna.
[ADV] guava [PRO] [PRE] glossy [ADV] skin [PRO]
Bibi still guava that because shiny still its skin.
The guava is still tata because its skin appears shiny.

The original meaning of the lexicon of *bibi* is 'SOMETHING' and is polygamous with 'ASLIKE'. Furthermore, the lexicon exponential with X is something. The explanation is as follows:

Explanation of *bibi*

- X happens to something
- Something that happens to rice or fruit
- One can look at it and think like this:
 - This is like a fruit or a seed
 - The shape is already beginning to look like a fruit or seed, but it is still very young
- If people touch it gently, people can feel:
 - It's still very soft
 - If pressed, clear or white liquid comes out
 - The inside is not solid, there is no content like ripe fruit or seeds
- People know:
 - It is still in the early stages of becoming a full fruit or seed
 - Now it can't be eaten or used
- Therefore, one might think:
 - This plant is still growing and hasn't produced anything yet, but it could be something good later if all goes well
 - It still takes a long time before it can be harvested
- When people know this, they will call her *bibi*

c) *mongkol*

The adjectival lexicon *mongkol* in the Batak Toba language is used to describe the condition of a fruit that has fully developed in size but has not yet reached complete ripeness. Fruits in this state typically resemble ripe ones in size, but their texture remains firm, the taste tends to be sour or astringent, and the characteristic aroma of ripe fruit has not yet emerged. The skin color often does not show a full transition toward ripeness, although parts of the surface may begin to fade or change.

The *mongkol* condition is generally transitional. The fruit is in a phase between early physiological maturity and full ripeness, which is marked by sweetness, soft flesh, and the emergence of a distinct aroma. In fruits like papaya, *mongkol* is characterized by flesh that is still crisp and skin that remains dark green. Although such fruit can be consumed, it is not considered ideal in terms of quality, especially for fresh, direct consumption.

The adjective *mongkol* refers to visible and physical traits that indicate an incomplete final stage of fruit development. The primary indicators focus on texture, taste, and

color. This condition does not imply damage, but rather a delay or imperfection in the natural ripening process that can be identified through direct observation. Take note of the following example sentence:

Ai mongkol dope botik on, dang boi allangon
[PRE] [ADV] papaya [PRO], [ADV] [ADV] dimakan
Because mongkol still papaya this, cannot be eaten
The papaya is still mongkol, so it cannot be eaten

The original meaning of the lexicon *mongkol*, as understood from the explanation and sentence examples above, is ‘SOMETHING’ and it is polysemous with ‘LIKE’. Its exponent is expressed as ‘X is something’. To gain a deeper understanding of this lexicon, the following explication is presented:

Explanation of *mongkol*

- X happens to something
- That something is a plant, such as a fruit
- When someone touches and tastes it, the fruit is still firm, not yet sweet, sometimes slightly sour or astringent, and lacks the pleasant smell of a ripe fruit
- People know:
 - This fruit is not yet like the usual ripe fruit
 - But it is not a spoiled fruit
 - No one desires it in this condition
- Therefore, people might think:
 - If they wait a little longer, the fruit could become tastier to eat
- When someone realizes this, they say the fruit is *mongkol*

d) *tangkual*

The adjectival lexicon *tangkual* in the Batak Toba language is specifically used to refer to the condition of a durian fruit that has fallen from the tree but has not yet fully ripened. Externally, a *tangkual* durian may appear ready to be opened—heavy, firm, and sometimes with a slightly cracked shell—but its interior has not undergone complete ripening. The flesh of a *tangkual* durian typically has not fully expanded, its texture remains somewhat dense or fibrous, and its flavor lacks the characteristic sweetness and aroma of a ripe durian.

This condition indicates that the durian detached from its stem before the internal ripening process was complete. The most noticeable signs are pale flesh, a neutral or weak taste, and a texture that is not yet soft. While some durians may ripen perfectly after falling, *tangkual* is marked by limitations in final development that cannot be corrected even with post-harvest storage.

The *tangkual* condition represents an imperfection in the durian’s ripening cycle, identifiable through visual and textural indicators. This lexicon specifically refers to the post-harvest state of durian fruit that does not meet the criteria of full ripeness. Its usage is limited to describing fruit quality based on direct observation of the flesh and its consistency. Here is an example of how this adjectival lexicon is used in a sentence:

Tangkual do durian on, dang suman permasakna
[PAR] durian [PRO], [ADV] perfect its maturity[PRO]
Tangkual durian this, not perfect its ripeness
This durian is tangkual because its ripeness is not perfect

Based on the explanation and examples above, the original meaning of the lexicon *tangkual* is ‘SOMETHING’ and it is polysemous with ‘LIKE’. Furthermore, its exponent is expressed as ‘X is something’. To better understand this lexicon, the following explication is presented.

Explanation of *tangkual*

- X happens to something
- That something is a fruit, such as durian
- This fruit has already fallen from the tree
- But when someone opens it and sees the inside, they might think:
 - The inside of this fruit is not yet like a ripe durian
 - The flesh is not soft
 - Its color is pale
 - The taste and smell are not sweet or strong
- People know:
 - The ripening process inside this fruit was not complete before it fell from the tree
 - Now it cannot improve even if stored
 - This fruit fell before its time
 - No one wants this
 - Everyone thinks it is not good
 - This fruit fell before its time
- When someone finds a durian like this, they will call it *tangkual*

Table 1. Unripe Lexicon Semantic Comparison

No	Comparison	<i>tata</i>	<i>bibi</i>	<i>mongkol</i>	<i>tangkual</i>
1	Stage of development	Fruit already large	Young fruit	Fruit large, approaching ripeness but not fully ripe	Durian has fallen but is not fully ripe
2	Taste	Not sweet, no aroma	No flavor (still young)	Sour/astringent, not sweet	Weak flavor, no strong aroma
	Texture	Hard, dense	Soft	Hard, crisp	Firm, fibrous
3	Color / Visual cues	Large but not ripe color yet	Shiny green	Partially fading skin color	Pale flesh, skin not fully ripe
4	Consumability	Not edible	Not edible	Edible but not ideal; low quality	Not edible; will not ripen further even if stored

Conclusion

Based on the analysis and discussion above, it can be concluded that the adjective 'unripe' in reference to fruit in the Batak Toba language is a lexical item that gives rise to several variants. There are four lexical variants of the adjective 'unripe' in fruit: tata, bibi, mongkol, and tangkual. The adjective 'unripe' carries an original meaning of 'SOMETHING' and is polysemous with 'LIKE'. As explained earlier, each of these adjectives has a distinct meaning.

In actual usage, many Batak Toba speakers often misapply these lexicons in context. The majority of speakers tend to treat these adjectives as interchangeable, using them to describe any unripe or immature fruit condition. This misunderstanding leads to misinformation and misinterpretation. Therefore, through this writing, it is hoped that Batak Toba speakers will gain a clearer understanding of the semantic differences among these adjectives, down to their most fundamental and detailed conceptual levels, so that such errors and misuses will not continue to occur.

References

- Ariana, I. P., & Sulastra, I. K. (2019). Verba Lempar Bahasa Bali: Kajian Metabahasa Semantik Alami. *Sphota*, 11(2), 41–48. <https://e-journal.unmas.ac.id/index.php/sphota/article/view/1208/1029>
- Harahap, A. I. (2024). Struktur Semantis Verba “Menciptakan” Bahasa Arab: Kajian Metabahasa Semantik Alami. *7(1)*, 141–156. <https://jurnal.stiq-amuntai.ac.id/index.php/al-miyar/article/view/3175/pdf>
- Khrisnantara, I. G. Y. A., Sudipa, I. N., & Laksana, I. K. D. (2017). Struktur semantik verba “membawa” dalam bahasa osing banyuwangi. 4743(1990), 96–102. <https://ejournal.undiksha.ac.id/index.php/JJPBS/article/view/28200/15942>
- Munandar, I., & Darmayanti, N. (2020). Tindak Tutur Ilokusi dalam Pidato Ridwan Kamil pada Acara Bukatalks: Suatu Kajian Pragmatik. *Jurnal Metabasa*, 3(1), 25–40.
- Putri, I. L., Darni Enzimar Putri, & Rahtu Nila Sepni. (2019). Struktur Semantis Verba ‘Jatuh’ dalam Bahasa Jepang Subtipe Terjadi-Bergerak: Kajian Metabahasa Semantik Alami. *Jurnal Kotoba*, 7(1), 28–41. <https://kotoba.fib.unand.ac.id/index.php/kotoba/article/view/82/pdf>
- Rahardian, E. (2021). Struktur Semantis Verba Aktivitas Gigi dalam Bahasa Jawa: Kajian Metabahasa Semantik Alami. *Widyaparwa*, 49(1), 41–55. <https://doi.org/10.26499/wdprw.v49i1.783>
- Rahman, N. I. Z. (2020). Metabahasa semantik alami (msa) verba “memasak” dalam bahasa jawa jembaran natural semantic metalanguage (nsm) of verb “cooking” in javanese jembaran language. *Multilingual*, 19(1), 57–71. <https://dlwqtxts1xze7.cloudfront.net/67016504/129-libre.pdf?1620178064=&response-content-disposition>
- Rosa, R. N. (2018). The Meanings of Minangkabau Verb ‘Mancaliak’: A Natural Semantic Metalanguage Approach (pp. 1–11). <https://doi.org/10.24036/ld.v12i1.9787>
- Saktriawindarta, R., & Kusriani, K. (2024). Methods for Classifying Fruit and Vegetable Ripe Levels: A Systematic Review. *G-Tech: Jurnal Teknologi Terapan*, 8(4).
- Saeed, J. (2003). *Semantic ‘second edition’*. Blackwell: USA/UK.



- Simanjuntak, D. S. R. (2024). Predikat kompleks bahasa Pakpak. 6(2), 310–320.
<https://journal2.uad.ac.id/index.php/genre/article/view/10525/4823>
- Sudaryanto. (2015). Metode dan Aneka Teknik Analisis Bahasa. Yogyakarta: Universitas Sanata Dharma.
- Wierzbicka, A. (1996a). Semantics: Primes and Universals. Oxford: Oxford University Press.
- Wierzbicka, A. (2018). Words and the World. Russian Journal of Linguistics, 22(3), 499-520.
- (2020). Meaning, Life and Culture. ANU Press.
- Wierzbicka, A., & Goddard, C. (2019). Cognitive Semantics, Linguistic Typology and Grammatical Polysemy: “Possession” and the English Genitive. Cognitive Semantics, 5(2).