# Analyzing [mɑw] as a Modal Element in Laki

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| Article Info | ABSTRACT |
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| | Modality is a linguistic device used to express concepts such as necessity, obligation, probability, commitment, and assumption in language. To fully describe events, situations, or people's attitudes, the use of verbs or noun phrases alone is not sufficient. Modality serves as an essential tool in all human languages for accurately conveying meaning. This study provides a theoretical analysis of modality in Laki, focusing on the modal functions of the element [mɑw] within Palmer's (2001) framework. In addition to its role in forming compound verbs in Laki, [mɑw] also has a modal function. The analysis demonstrates that this element conveys the modal meanings of possibility and permission. It is a commuting term that takes on different meanings in various contexts. It also appears once in a sentence before the lexical verb and is not inflected. Based on these four criteria, [mɑw] can be considered a modal auxiliary verb. This element represents event modality of permissive deontic in the Laki language. |

Publisher: Razi University

## 1. Introduction

Language is an intricate and uniquely human phenomenon that has been explored through diverse theoretical and methodological lenses. From a functionalist perspective, Halliday (1985) emphasizes that language functions as a tool to serve communicative purposes within social contexts. Functionalist linguists argue that language evolution is fundamentally tied to the human need for interaction, asserting that its primary role is to facilitate communication among inherently social beings. On the other hand, formalist scholars like Chomsky (1965) propose that language reflects the underlying mental and cognitive structures of humans. This approach views language as an innate faculty that provides profound insights into the architecture of the human mind. Formalists argue that investigating grammars—the abstract systems underlying language—is a critical pathway to understanding the mechanisms of language production and comprehension (Chomsky, 1965).

One essential linguistic mechanism for fulfilling communicative and cognitive functions is *modality*. Modality refers to linguistic tools that allow speakers to express various attitudes—such as beliefs, judgments, and levels of certainty—toward the propositions they convey. Modal expressions also capture notions of obligation, necessity, permission, and possibility, facilitating nuanced and precise communication. Without modal categories, it would be challenging, if not impossible, to articulate these subtle layers of meaning. Moreover, the absence of such tools would result in significant interpretive differences in listener comprehension, as modal expressions are crucial for encoding the speaker's stance (Saeed, 2009).

Given the profound impact of modality on linguistic meaning, its study has garnered significant attention across disciplines. Analyzing modality provides valuable insights into how language encodes subjective perspectives, thereby enhancing one's ability to comprehend, analyze, and interpret both spoken and written texts. In language learning, mastery of modality empowers learners to convey thoughts and emotions with greater accuracy, while in literary and philosophical discourse, it reveals deeper interpretive layers, enriching our understanding of the author's or poet's intentions (Evans, 2013; Palmer, 2001).

Modality manifests in all human languages through a range of lexical and grammatical mechanisms. These include modal auxiliary verbs, inflectional affixes, modal adjectives, and adverbs. Some languages represent modality purely semantically, using lexical items, while others incorporate grammatical markers, such as affixes, to indicate modality. Many languages exhibit a hybrid system, utilizing both grammatical and semantic devices depending on context. Consequently, modal categories resist rigid classification as purely semantic or grammatical. Recent interdisciplinary research on modality highlights its dual nature, asserting that both grammatical and semantic approaches are necessary for a comprehensive understanding of its descriptive and theoretical dimensions (Hacquard, 2006; Homayounfar, 2013; Rezaei & Bahrami, 2015).

Saeed (2009) differentiates between two related but distinct concepts: *mood* and modality. Mood refers to modal distinctions expressed through verb inflection and conveyed via morphological–syntactic mechanisms. For instance, mood is often marked by inflectional affixes attached to the verb in a sentence. Modality, in contrast, operates as a semantic category and is expressed through lexical elements such as modal auxiliary verbs and adverbs. Homayounfar (2013) and Rezaei and Bahrami (2015) emphasize that the distinction lies in their functional roles: mood is primarily grammatical, while modality is predominantly semantic.

Palmer (2001) offers a comprehensive typology of modality, categorizing it into two primary types: *propositional* modality and *event* modality. Propositional modality pertains to

the speaker's attitude toward the truth value of a proposition and encompasses *epistemic* and *evidential* modalities. Epistemic modality reflects the degree of certainty or probability associated with a statement, whereas evidential modality conveys the source of information or evidence supporting the claim. In contrast, event modality concerns actions or events that have not yet occurred but are deemed possible, necessary, or obligatory. This category includes *deontic* modality, which expresses obligations and permissions, and *dynamic* modality, which pertains to an individual's ability or willingness to perform an action (Nuyts, 2008; Palmer, 2001).

Recent studies have further nuanced Palmer's (2001) framework, emphasizing the interplay between grammatical and semantic modalities across languages. Dabir-Moghaddam (2013) provides a typological analysis of modality in Iranian languages, noting that languages like Laki employ ergative–absolutive agreement systems alongside robust modal mechanisms. These findings underscore the complexity and variability of modality across linguistic systems.

Iranian languages, including Laki, display a rich array of modal expressions. Dabir-Moghaddam (2013) categorizes Laki as part of the Northwestern branch of Western Iranian languages, noting its distinctive use of middle verbs compared to other Eurasian languages. He also highlights its ergative–absolutive agreement system, which distinguishes it from the more familiar nominative–accusative systems. Modal expressions in Laki are conveyed through a combination of lexical and grammatical mechanisms, including modal auxiliaries, affixes, and adverbs. This interplay enables speakers to encode a wide range of modal meanings, from obligation and necessity to possibility and permission.

The data for this study draw on linguistic intuition of one of the authors, a native speaker of Laki, and empirical analysis of the central dialect of Delfan County (Nurabad, Lorestan), specifically the variety spoken by the Nurali and Mirbag tribes.

In Laki, the element [mɑw] functions as the second part of compound verbs in certain contexts. In example (1), [mɑw] is the second component of the compound verb meaning "to melt."

1. kaɾɪ=a         mɑw=a            ʔaw,        bə–nɪ=e                    jaχtʃɑl.

   butter=DEF[1].3SG become=DEF.3SG  melt, SBJV[2]-put.2SG=3SG inside fridge
   "The butter is melting; put it in the fridge."
   In some contexts, however, this word does not mean "to become" but rather conveys the modal meanings of "permission" or "possibility."

2. mɑ             be-tʃim-e            dar?
   become/possible/permission            SBJV-go-1PL[3]        outside
   "Can we go outside?" or "Is it possible for us to go outside?" or "Do we have permission to go outside?"

This study aims to investigate the nature of the element [mɑw] in the Laki language. Specifically, it examines whether [mɑw] can be considered a modal auxiliary verb. If so, the study further explores what modal meanings this element conveys, and what type of modality is expressed through it.

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1. definite
2. subjunctive
3. plural

## 2. Literature Review

In recent decades, modality has emerged as a central topic in linguistic studies, with scholars investigating how different languages encode modal meanings. Modality refers to the linguistic means of expressing necessity, possibility, permission, obligation, and other related concepts. Much of the early theoretical work on modality has been conducted in European languages, particularly English, with influential contributions from scholars like Palmer (1986, 1990, 1994, 2001, 2004), Portner (2009), Cinque (1999, 2004), and Hacquard (2006, 2010, 2011), who have explored the grammatical, syntactic, and semantic aspects of modality. These studies have led to a refined understanding of modality, categorizing it into various types such as epistemic, deontic, and dynamic modality—each reflecting different aspects of speaker intention and the relationship between language and the world. In recent years, researchers have also turned their attention to modality in non-Indo-European languages, including Iranian languages, where scholars have begun exploring the diversity of modal expressions across Persian and its dialects (Akhlaqi, 2007; Rahimian, 2011).

Although studies on modality in Persian have been well-established, there has been relatively limited research on modality in other Iranian languages and dialects. This gap in research is particularly noticeable when considering the linguistic variety within Iran's regional languages, such as Kurdish, Luri, and others. In particular, modality in Kurdish dialects, including Sorani and Hawrami, has received increasing attention in recent studies (Moradi, 2013; Naghzguy Kohan & Naghshbandi, 2016). Despite this, Laki, a lesser-studied language within the Northwestern subgroup of the Western Iranian languages, has yet to undergo a detailed theoretical study on its modality system. This section will review some of the key works on modality in Iranian languages, with a focus on Persian and its dialects, and explore how these studies contribute to our broader understanding of modality across languages.

Palmer (2001) conceptualizes modality as both a grammatical and semantic category. According to Palmer, modal meanings cannot be fully captured by a single grammatical or semantic framework; instead, they require an integrated approach that considers both the syntactic structure and the contextual meaning of modal expressions. His model of modality has evolved over time, shifting from a focus on the syntactic–semantic features of modal elements (1986, 1990, 1994) to a more holistic perspective that incorporates pragmatic and context-dependent considerations (2001). Palmer's distinction between epistemic modality (which conveys the speaker's assessment of knowledge or belief), deontic modality (which concerns permission, obligation, or necessity), and dynamic modality (which expresses the potential or ability to perform an action) remains a cornerstone of contemporary studies on modality. This theoretical framework is foundational for the present study, and a detailed discussion of its application will be provided in the following sections.

Recent scholarship has expanded Palmer's (2001) framework, exploring the role of modality in discourse and its interaction with other grammatical categories such as aspect and tense (Nuyts, 2008). Modality is increasingly seen not just as a grammatical marker but also as a discourse strategy that reflects speakers' mental states, attitudes, and the social context of communication. This shift in understanding modality as a flexible, context-dependent phenomenon aligns with newer perspectives on linguistic meaning, which emphasize the interaction between grammar, cognition, and social function.

In the context of Persian, modality has traditionally been explored through the lens of modal auxiliary verbs. Akhlaqi (2007) identifies [bɑjestæn] ("must"), [ʃodæn] ("to become"), and [tævɑnestæn] ("can") as modal verbs in Persian. He considers modality to be a syntactic–

semantic feature and equates mood with verbal mood. Akhlaqi argues that these three Persian modal verbs were originally lexical verbs that, after undergoing grammaticalization, have diverged in terms of their degree of modality. Among them, [bɑjestæn] is considered the most modal, as it lacks specific temporal reference and possesses a highly frequent form, [bɑjæd] ("must"), which can be used consistently without altering its meaning. Between [ʃodæn] and [tævɑnestæn], [ʃodæn] is deemed more modal due to its more limited inflectional forms and fixed usage. Akhlaqi's analysis reveals that in Persian, modal verbs express three types of modality: epistemic, deontic, and dynamic, each of which has two degrees—necessity and possibility.

Amouzadeh and Rezaei (2010) examined the diverse meanings of the modal verb [bɑjæd] ("must") in Persian through a pragmatics and semantics lens. They argue that sentences which express the speaker's stance toward the occurrence of an event, in any form, carry modal meaning. Due to the wide scope of modality, they recognize various subdivisions and terms for it. They accept a broad dual classification of modality, distinguishing between *speaker-oriented* modality (or epistemic modality) on the one hand, and *agent-oriented* modality (or root modality) on the other hand. Amouzadeh and Rezaei argue that [bɑjæd] plays a key role in conveying modal meanings in sentences, alongside other elements such as [tʃon] ("because"), [ehtemɑlæn] ("probably"), [momken ast] ("it is possible"), and [lɑzem ast] ("it is necessary"). They explain the semantic and pragmatic differences between epistemic [bɑjæd] and deontic [bɑjæd] as follows: in epistemic modality, the speaker expresses necessity based on available evidence or strong inference from their knowledge, and this necessity is oriented toward the past (i.e., retrospective). However, in deontic modality, the focus is on the future (i.e., prospective), with the necessity or obligation for action based on the speaker's authority or other criteria, rather than on inference or available evidence. They conclude by emphasizing that modality is a context-dependent category, and studying its meaning without considering the context of use is not sufficient for a full understanding.

Rahimian (2011) adopts a similar approach to Palmer's (2001) model but adds a crucial dimension by exploring the degrees of modality in Persian. He argues that modality in Persian is not simply a binary concept of necessity or possibility but rather involves varying degrees of strength, which are determined by contextual factors. Rahimian classifies modality into three levels of strength: strong, moderate, and weak. This categorization is based on the speaker's confidence in the likelihood of an event occurring. Strong modality indicates high certainty, moderate modality reflects some uncertainty, and weak modality signals low certainty or speculation. This framework helps explain how Persian speakers use modal verbs not only to express necessity or possibility but also to adjust the degree of certainty and commitment to their statements.

Although much of the research on modality in Iranian languages has focused on Persian, studies on Kurdish dialects have begun to shed light on the typological variation in modality within Iranian languages. Moradi (2013) identifies the modal auxiliary verbs in Sorani Kurdish as [ʔeʃe] ("must" or "might"), [bu:in] ("to become"), and [twanin] ("to be able to"). He argues that all three modal auxiliaries in Sorani Kurdish can express three types of modality: epistemic, deontic, and dynamic. Naghzguy Kohan and Naghshbandi (2016), following Palmer's views on the grammatical–semantic category of modality and his classification of modal systems, identify the modal verbs in Hawrami Kurdish as [maʃjo] ("must"), [bijej] ("to become"), and [ta:wa:j] ("to be able to"). They state that in Hawrami, dynamic, deontic, and epistemic modalities are expressed through these modal verbs.

However, none of the modal verbs discussed in their study have the capacity to convey evidential modality. Instead, the language utilizes other mechanisms, such as grammatical tense and lexical expressions, to indicate the source of information.

These studies of Kurdish dialects highlight the diversity of modal systems within Iranian languages and emphasize the need for more detailed comparative studies. Although Persian and Kurdish share some modal structures, there are significant differences in how modality is encoded, particularly with regard to the grammatical and lexical mechanisms involved.

The study of modality in Iranian languages has expanded beyond Persian to include other languages such as Kurdish, providing valuable insights into the typological diversity of modality within the region. Scholars like Akhlaqi (2007), Amouzadeh and Rezaei (2010), Rahimian (2011), and Moradi (2013) have made significant contributions to understanding how modality functions in both Persian and Kurdish. The emerging research on modality in languages such as Laki, which has yet to receive detailed theoretical treatment, holds considerable potential for further expanding our understanding of how modality operates across the Iranian linguistic landscape. Future studies will need to continue exploring the complex relationship between modality, context, and speaker intentions in a variety of languages, thereby offering a richer, more nuanced perspective of this important linguistic phenomenon.

## 3. Method

Laki is a member of the Northwestern subgroup of the Western Iranian languages, predominantly spoken in the northern and northwestern regions of Lorestan Province, with additional speakers found in parts of Kermanshah, Ilam, and Hamadan provinces (Dabir-Moghaddam, 2013). The study of modality in Laki involves analyzing data collected from the dialect spoken in the central region of Delfan County, specifically the variant used by the Nurali and Mirbag tribes. Given the highly specific nature of this dialect, the data presented in this study was selected based on the linguistic intuition of one of the authors, a native speaker of Laki, providing a deeply contextualized view of the language. The data were analyzed using Palmer's (2001) framework for modality, allowing for a structured examination of modal categories in this understudied language.

## 4. Theoretical Framework

Modality refers to the way in which languages express attitudes toward the truth of propositions, concerning events and their likelihood, necessity, or possibility. Palmer (2001) defines modality as distinct from tense and aspect because it does not directly reference the temporal features of an event. Instead, modality conveys a speaker's perspective on the status or truth value of a proposition. This view aligns with the broader conceptualization of modality as an essential aspect of linguistic meaning, influencing how individuals convey beliefs, obligations, and possibilities. As Palmer (2001) notes, languages express modality through various means, such as modal auxiliary verbs, inflectional morphemes, or lexical elements like adverbs. These forms may vary widely across languages; for instance, English utilizes modal auxiliaries (e.g., can, must), whereas languages like Spanish employ inflectional affixes to mark modality on the verb.

Recent work on modality emphasizes the need for an integrated approach that recognizes both semantic and grammatical dimensions. Although traditional views often treated modality as either grammatical (e.g., expressed through verb morphology) or semantic (e.g., conveyed

via lexical items), current perspectives suggest that both aspects coexist and interact within many languages (Evans, 2013). This conceptual shift has led to a more nuanced understanding of modality, where the distinction between grammatical and semantic modality becomes fluid, influenced by both context and linguistic structure.

According to Palmer (2001), modality in language can be categorized into two primary systems: modal systems and mood. Mood specifically refers to grammatical forms that express the speaker's attitude toward the truth of a proposition, typically through verb inflection. Mood is commonly classified into two types: the indicative, which is used for propositions that are considered factual or real, and the subjunctive, which pertains to non-factual or hypothetical propositions (i.e., irrealis). The relationship between realis (what has occurred) and irrealis (what has not yet occurred) is a central component of mood, with the indicative mood corresponding to realis and the subjunctive mood often marking irrealis. However, the distinction between these moods is not always clear-cut, especially when future events are concerned, as the indicative can sometimes refer to events that are projected or hypothetical.

This distinction between modality and mood is important because it highlights the different mechanisms by which languages express modality. Mood is typically marked through inflectional affixes, making it a syntactic and grammatical feature, whereas modality is often conveyed via lexical elements, which is more semantically oriented. Thus, Palmer (2001) distinguishes between these two categories, emphasizing that modality involves both a grammatical and a semantic component. Moreover, languages vary in how they express modality, with some languages using only mood, others relying on modal systems, and some employing both (Evans, 2013).

Palmer (2001) classifies modality into two broad categories: propositional modality and event modality. These categories share a fundamental feature: both express a speaker's attitude toward a proposition. Propositional modality relates to the speaker's evaluation of the truth value of a statement, typically concerning facts that have already occurred. In contrast, event modality deals with future or potential events, reflecting the speaker's attitude toward actions that may or may not take place. This division is important because it allows for a clearer understanding of how modality operates in different contexts. The distinction is not purely theoretical, as the two types of modality may overlap in certain contexts, particularly when the speaker's judgment about a proposition can influence both the present and the future.

**Propositional Modality: Epistemic and Evidential Subtypes**

Propositional modality itself can be divided into epistemic and evidential modality. Epistemic modality concerns the speaker's assessment of the truth or likelihood of a proposition based on personal reasoning or belief. Palmer (2001) outlines three main types of epistemic modality:

- **speculative modality**: This type reflects a speaker's conjecture or guess about the truth of a proposition, typically made without certainty about its occurrence. It often draws on the speaker's personal experience or inductive reasoning from past events.

- **deductive modality**: This modality is based on observable evidence, where the speaker makes judgments about the truth of a proposition based on what they observe. It reflects a more logical reasoning process than speculative modality.

- **assumptive modality**: This category is concerned with conclusions drawn from pre-

existing assumptions or premises, where the speaker uses these assumptions to deduce the truth of a proposition.

All three types of epistemic modality are grounded in the speaker's personal judgment and reflect subjective reasoning about the world (Nuyts, 2008; Palmer, 2001).

Evidential modality, on the other hand, extends epistemic modality by incorporating evidence from external sources. In this case, the speaker's judgment about the truth of a proposition is informed by perceptual or testimonial evidence. Palmer (2001) categorizes evidential modality into reported and sensory types:

- **reported evidentiality**: This type involves knowledge derived from others' statements or reports, making the speaker's knowledge dependent on external testimony.

- **sensory evidentiality**: Here, the speaker's judgment is based on personal sensory experience, such as visual or auditory evidence.

Both forms of evidential modality underscore the importance of external sources in validating the truth of a proposition, distinguishing them from purely epistemic judgments that rely on internal reasoning (Evans, 2013).

Event modality, as defined by Palmer (2001), pertains to events that have not yet occurred but are seen as possible or likely to happen. Event modality is often divided into two subtypes: deontic and dynamic modality. Deontic modality involves concepts like obligation, permission, and necessity, which are often influenced by external factors such as societal norms or laws. Dynamic modality, however, concerns the internal factors influencing an event, such as the ability, willingness, or desire of the agent to perform the action. This distinction highlights the role of external versus internal forces in shaping modality.

Within deontic modality, Palmer (2001) further refines the classification into *obligative*, *permissive*, and *commissive* modalities. Obligative modality expresses compulsion or necessity, whereas permissive modality indicates freedom or permission. Commissive modality reflects the speaker's commitment to carrying out an action, often associated with promises or intentions (Searle, 1983). Dynamic modality, as explained by Palmer (2001), is divided into *volitive* (concerning desire or willingness) and *abilitive* (concerning ability), both reflecting internal factors that influence the likelihood of an event occurring.

A key feature of Palmer's (2001) approach to modality is the recognition that modal categories are context-dependent. The same modal element may convey different meanings or serve various functions depending on the context in which it is used. This flexibility is essential for understanding how modality functions across languages and cultures. The shifting meanings of modal expressions underscore the importance of contextual analysis in modality research. Thus, as Palmer (2001) argues, a comprehensive analysis of modality must take into account the specific communicative context in which modal expressions occur.

## 5. Data Analysis

Modal concepts are fundamental to all human languages, serving to convey attitudes and assessments of possibility, necessity, permission, and other related notions. As Palmer (2001) asserts, modality is a universal feature of human language, present in every known linguistic system. However, the way modality is expressed varies significantly from one language to another. Although all languages include modality, the linguistic tools they use to express modal meanings—such as auxiliary verbs, inflectional morphology, or lexical items—differ considerably. This variation can be observed in the diverse grammatical structures and lexical

forms that languages employ to encode modal concepts, influencing how speakers convey their perceptions of reality, obligation, and permission (Evans, 2013).

Recent studies have emphasized the complexity of modal expression, noting that the representation of modality in language is not merely a matter of lexical items but often involves a combination of syntactic, morphological, and pragmatic elements. For instance, while English frequently uses modal auxiliary verbs (e.g., can, must, might) to express modality, other languages rely on inflectional morphology or non-verbal strategies like adverbs to mark modal meanings (Nuyts, 2008; Palmer, 2001). This highlights the need for a flexible approach when analyzing modality across languages, as the same modal concept may be encoded through different means depending on the typological features of the language in question.

Palmer (2001) introduces an important aspect of modality: modal elements are inherently commuting terms. This means that a single modal element can shift in meaning depending on the context in which it is used. Modal verbs, for instance, are not static in meaning; they can express a range of concepts—such as obligation, permission, possibility, or necessity—depending on the context. A modal verb that conveys necessity in one sentence may express possibility in another, demonstrating the dynamic and context-dependent nature of modality. This variability underscores the importance of context in understanding modal expressions, as the meaning of modal constructions is not fixed but is shaped by the surrounding discourse.

Furthermore, recent research into modality has stressed the influence of discourse context and speaker intentions in shaping the interpretation of modal expressions. Modal elements often function not only to mark grammatical relationships but also to signal the speaker's stance, epistemic uncertainty, or commitment to the truth of the proposition. This contextual flexibility challenges traditional analyses that view modality as a rigid grammatical category, instead proposing that modal elements should be understood as fluid, shaped by both linguistic and extra-linguistic factors.

One of the key features of modal elements, as identified by Palmer (2001), is their uninflectability. Modal auxiliary verbs, in particular, do not take on inflectional forms that would indicate person, number, or tense. Unlike regular lexical verbs, which can inflect to mark agreement or tense (e.g., he runs, they ran), modal auxiliaries remain in a fixed form across different syntactic contexts. This property is particularly evident in languages such as English, where modal verbs do not undergo subject-verb agreement or tense marking, contrasting sharply with the inflectional behavior of lexical verbs (Nuyts, 2008).

This characteristic has also been confirmed by studies on other languages. In Persian, for example, Gholamalizadeh (2008) and Rahimian (2011) observe that modal auxiliary verbs remain uninflected for person and number. In Persian, a modal auxiliary verb is typically placed before the main lexical verb in a sentence, and it does not change form regardless of the subject or tense of the sentence. For instance, in the sentence [bāyad begirad] ("must take"), the modal verb [bāyad] remains unchanged whether the subject is singular or plural. This observation aligns with Palmer's (2001) theory that modal elements are invariant in form, which distinguishes them from lexical verbs that are subject to inflectional processes.

Moreover, Gholamalizadeh (2008) highlights the syntactic behavior of modal auxiliaries in Persian, noting that these elements always precede the main verb within the clause. This positioning contrasts with that of lexical verbs, which can appear in a variety of syntactic positions, depending on the structure of the sentence. The fixed positioning of modal auxiliaries in Persian provides further evidence for Palmer's (2001) argument that modality is not only a semantic but also a syntactic phenomenon, reflecting both the structure of the

language and the communicative intentions of the speaker.

To examine the modal aspects of the element [mɑw], in this study, we seek to answer the following four questions:

1. Does this element possess a modal meaning?
2. Is it a commuting term?
3. Is it uninflectable?
4. Can it be positioned before the main verb in a sentence?

If affirmative answers are obtained for all these questions, we will identify [mɑw] as a modal auxiliary verb in the Laki language.

In Laki, the element [mɑw] functions as the first component of compound verbs in certain contexts. In example (3), [mɑw] forms the first part of the compound verb [mɑw–a ʔɑw] ("to melt") and does not convey any modal meaning. When [mɑw] is used in the construction of a compound verb, it consistently carries the meaning of "becoming" and its meaning remains unchanged across different contexts. In such instances, [mɑw] behaves like a lexical verb, taking on an agreement marker and being conjugated for different persons. Additionally, it appears in the position of a lexical verb, rather than preceding it. Therefore, in these contexts, [mɑw] should be categorized as a lexical item, not a modal one.

3. kaɾɪ=a            mɑw=a            ʔɑw,         bə–nɪ=e              jaχtʃɑl.

butter=DEF.3SG become=DEF.3SG melt, SBJV-put.2SG=3SG inside fridge
"The butter is melting; put it in the fridge."

In example (4), [mɑw] also functions as the second component of the compound verb [qabul-bi:n] ("to be accepted") and has received the plural marker for the second person. The explanation provided for example (3) applies here as well. Just like in the previous example, [mɑw] in this context behaves as a lexical verb, taking inflectional markers and operating as part of a compound verb without conveying any modal meaning.

4. ʔɛmtəɦon=a       tʃy       bi?          Qabul=a           mojn-o?

exam=DEF.3SG      how      be.PST[1].3SG    pass=DEF.3SG     become-2PL
"How was the exam? Will you all pass?"

In certain contexts, [mɑw] does not convey the meaning of "becoming" but instead refers to the modal concepts of "permission" or "possibility." In example (5), [mɑw] is not part of a compound verb; rather, it conveys the meaning of "permission" or "possibility," and unlike in examples (3) and (4), it does not mean "to become." In example (5), the speaker is asking for permission to leave, for example, a doctor's office. Depending on the context, the sentence can also be interpreted as expressing possibility. For instance, the speaker may have intended to go for a walk, but due to unfavorable weather conditions, the speaker uses the word [mɑw] to inquire about the possibility of going outside.

5. mɑw            be–tʃ–im=e                 dar?

become          SBJV-go-1PL=3SG          outside
"Can we go outside?" or "Is it possible to go outside?" or "Do we have permission to go outside?"

_____

1 . past

Example (5) demonstrates that [mɑw] can convey modal meanings such as "possibility" or "permission," depending on the context of use. These meanings are distinct from the lexical sense of "to become" in compound verbs. The presence of both a lexical meaning in some constructions and distinct modal meanings in other contexts demonstrates [mɑw]'s context-sensitive (commuting) nature. Additionally, in example (5), [mɑw] does not receive inflectional markers for person or number and appears before the main verb in the sentence, without being used afterward. As mentioned earlier, one of the key characteristics of modal auxiliary verbs is their fixed, uninflected form. To further examine this feature, we turn to examples (6) to (8). In these cases, [mɑw] conveys a modal meaning without carrying a lexical meaning, as the main verb in each sentence is a simple verb that does not require a compound element. In these sentences, [mɑw] denotes modal concepts such as permission or the possibility of carrying out the proposition. In examples (6), (7), and (8), [mɑw] is used in a consistent form for the first person singular, third person singular, and second person plural, respectively. These examples show that [mɑw] is used in a stable, fixed form across all grammatical persons, without any added inflectional affixes, and it does not establish person or number agreement with the main verb.

6. mɑw                                        be–niʃ–əm?

   be possible/permission/become        SBJV-sit-1SG
   "Can I sit?" or "Do I have permission to sit?"

Example (6) illustrates that [mɑw] is used to ask for permission or possibility. In this sentence, [mɑw] conveys the meaning of "being allowed" or "being possible" rather than "becoming." The structure suggests the speaker is inquiring whether sitting down is permissible or feasible in that context.

7. mɑw                    di           qazɑ        bar–ɪ.

   become/permission      anymore      food        eat.SBJV-3SG
   "He/she can eat food." or "He/she is allowed to eat food."

In example (7), [mɑw] is used as a modal auxiliary to express permission or ability. The sentence indicates that the subject (third person singular) is allowed or has the ability to eat food. The verb [bar-ɪ] ("to eat") is inflected for the third person singular, whereas [mɑw] remains unchanged. This demonstrates that [mɑw] does not receive any inflection for person or number, a key feature of modal auxiliary verbs. Additionally, [mɑw] appears before the main verb, further indicating its auxiliary status.

8. mɑw        ʔe ʔałɑr=a     ʔa pɑ      bɑi–mɑ?

   become/possibility/permission from return=3SG with foot come.back.SBJV-1PL
   "Can we walk back?" or "Is it possible for us to walk back?" or "Are we allowed to walk back?"

Here, [mɑw] expresses the possibility or permission for the group (second person plural) to walk back. The sentence asks whether the action (walking back) is allowed or possible, depending on the context. In this case, [mɑw] is again inflectionless, despite the subject being second person plural, indicating its fixed form across persons.

Palmer (2001) argues that modal auxiliary verbs lack an imperative form and cannot be used in the subjunctive mood. Example (9) demonstrates that [mɑw] does not take an imperative form, and using it in the imperative mood is awkward and ungrammatical.

9. *be‒mɑw          be‒niʃ

    SBJV-become     SBJV-sit.1SG
    *"Become sit."

In both examples (7) and (8), [mɑw] behaves as a modal auxiliary verb, remaining in a fixed form regardless of person or number, and appearing before the main verb to express notions of permission or possibility. Example (9) confirms that [mɑw] cannot take an imperative form, highlighting its auxiliary nature rather than that of a main lexical verb. Therefore, based on examples (3) to (9) and according to the four criteria introduced for modal auxiliary verbs, [mɑw] can be considered a modal auxiliary verb in Laki.

Palmer (2001) emphasizes the significance of the realis/irrealis distinction in his analysis of modal concepts. Mithun (2001) explains this distinction by stating that realis situations refer to those that have occurred, are occurring, and are perceivable through our senses, whereas irrealis situations are those that exist within the realm of thought, knowledge, or mere imagination (p. 173). Palmer (2001) further notes that, in some languages, the realis/irrealis distinction is morphologically marked in words. When this distinction is not morphologically explicit, these concepts are implicitly conveyed through the meanings of modal expressions.

According to Palmer (2001), the realis/irrealis distinction overlaps with the traditional grammatical categories of the indicative and subjunctive moods. The subjunctive is typically used for irrealis propositions, whereas the indicative is employed for realis ones. He views the realis/irrealis binary as a useful, though not sufficient, criterion for initially distinguishing between propositional modality and event modality. He considers propositional modality as realis because the propositions tend to refer to the past and are usually events that have already occurred. In contrast, event modality is deemed irrealis, as it looks toward the future, and future events have not yet been realized.

In addition to the realis/irrealis distinction, Palmer (2001) uses two tests to determine the type of modality expressed by a modal element:

- examining the modal element's capacity,
- employing semantic paraphrasing of sentences containing the modal element.

Palmer (2001) posits that propositional modality is monovalent, involving an internal argument, with the complementizer phrase falling within the scope of propositional modality. In paraphrasing a sentence with propositional modality, the complementizer "that" is employed, reflecting the speaker's personal and subjective evaluation of the proposition. In contrast, event modality is situated within the scope of the little verb phrase (vP), which Palmer (2001) considers bivalent; the little verb phrase is its internal argument, while the subject functions as the external argument for it. When semantically paraphrasing of the event modality, the complementizer "for" is utilized, signaling the speaker's perspective on the potential realization of a future event.

To determine the type of modality conveyed by [mɑw] in Laki, we begin by paraphrasing sentences and using the complementizers "that" and "for" to distinguish between propositional and event modality. Based on the author's linguistic intuition, the Laki equivalent of the complementizer "for" is [æra jæge], and the equivalent of "that" is [ke].

The element [mɑw] carries lexical meaning in certain sentences, while in others, it conveys a modal concept. Sentences with a modal meaning of [mɑw] are often accompanied by the subjunctive mood on the main verb, whereas the modal element [mɑw] itself is uninflectable and does not receive a mood marker. This interaction with the future tense indicates the

irrealis status of the propositions.

In the paraphrased form of [mɑw], a complementizer equivalent to "for" can be used. In example (10), the act of going outside has not yet taken place. By posing this question, the speaker implies that going outside requires permission from an authority figure; the individual cannot simply go out based solely on personal motivation. Sentence (11) rephrases sentence (10), using the complementizer [ke]—equivalent to "for." Thus far, the auxiliary verb [mɑw] exhibits event-oriented modality.

10. mɑw　　　　be-tʃim=e　　　　　　dar?
    become　　SBJV-go.1PL=1SG　　　outside
    "Can we go outside?" or "Is it possible to go outside?"

11. ʔarɑ jage　be-tʃim=e　　　　　dar　　ʔedʒɑza　　der–im?

    for　　that　SBJV-go.1PL=1SG outside　permission　　have-1PL
    "Do we have permission to go outside?"

Since the realization of the proposition to go outside in example (10) necessitates permission from an authority source and is influenced not by the individual's own will but by external factors, it reflects deontic modality, specifically, the type associated with permission.

## 6. Conclusion

This study examines the element [mɑw] in the Laki language, which sometimes functions as a component of compound verbs with the meaning of "becoming" and, in certain contexts, exhibits a modal nature, conveying notions of possibility and permission. Following the frameworks proposed by Palmer (2001), Gholamalizadeh (2008), and Rahimian (2011), four criteria were introduced to identify modal auxiliary verbs. Data from Laki, identified as containing modal meanings based on the linguistic intuition of one of the authors, were analyzed according to these criteria. The results show that [mɑw] conveys the modal concepts of possibility and permission in modal contexts, acts as a commuting term (taking on different meanings in different contexts), appears only once in a sentence before the lexical verb, and is uninflectable. Based on these findings, [mɑw] can be considered a modal auxiliary verb in Laki, representing event deontic modality of the permissive type, in line with Palmer's (2001) classifications.

### Ethical Considerations

### Funding

### Conflict of Interest

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