ON THE VERB *KIKOYU* IN PREMODERN JAPANESE: SEMANTIC EXPANSION OF COMPREHENSION USAGE

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Abstract
In modern Japanese, the verb kikoeru *denotes involuntary auditory perception. However, until the 19th century, it also conveyed "comprehension," equivalent to the modern verb* wakaru*. This study elucidates the mechanisms behind the emergence of three types of comprehension: auditory comprehension usage, general comprehension usage, and conviction usage. Results indicate that auditory comprehension arises from inferential interpretation of perceived stimuli, realized through the cognitive process of simulation in the 10th century. General comprehension developed in the 13th century via super-schematization of inference, while conviction usage emerged in the 17th century through instantiation of general comprehension usage in a synecdochic relationship.*

Keywords: Auditory perception; Inference; Comprehension; Simulation; Synecdoche.
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1. Introduction

In modern Japanese, the verb *wakaru* is used to express "comprehension." However, until the Early modern period (Edo period), the verb *kikoyu* 聞こゆ—originally denoting involuntary auditory perception and equivalent to the modern verb *kikoeru*—was also employed to signify "comprehension." Even within the scope of "comprehension," the degrees of "understanding" varied significantly. It has been established that the verb *kikoyu* represented three distinct types of comprehension: auditory comprehension usage, general comprehension usage, and conviction usage. Nevertheless, the mechanisms through which its original meaning of auditory perception evolved into meanings associated with "comprehension," as well as the processes that gave rise to these three distinct comprehension usages, remain unresolved.

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This study aims to elucidate these mechanisms through a diachronic analysis[2]. It seeks to demonstrate, to the greatest extent possible, that if cognitive mechanisms are the driving force behind the semantic changes of the verb *kikoyu*, then the order of semantic shifts can be diachronically determined in accordance with the human cognitive system.

The paper begins by examining the usages of the verb *kikoyu* in the ancient period of Japanese, followed by an introduction of theoretical frameworks that can explain the mechanisms underlying the emergence of the three types of comprehension usages. Subsequently, the study quantifies the inter-period frequencies of each usage using the *Corpus of Historical Japanese* and qualitatively analyzes representative examples for each usage. Finally, it offers a theoretical discussion on the grammatical and semantic changes surrounding the verb *kikoyu*.

2. Preliminaries

2.1 Usages of the Verb Kikoyu

According to *The Great Dictionary of Archaic Japanese*, the verb *kikoyu* in Premodern Japanese fundamentally conveys the meaning of involuntary auditory perception, as illustrated in I-a of Table 1[3]. The usages of this verb can be broadly categorized into those related to auditory perception (Table 1, I) and those related to comprehension (Table 1, II). The former can be further subdivided into three types: auditory usage (I-a), hearsay usage (I-b), and reputational usage (I-c). Similarly, the latter is classified into three types: auditory comprehension usage (II-a), general comprehension usage (II-b), and conviction usage (II-c)[4].

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[3] The lower bigrade verb *kikoyu* in Classical Japanese evolved into the modern Japanese form *kikoeru*, a monograde verb. While there are morphological differences between the ancient and modern forms, there is no change in argument structure, as the verb remains intransitive. This intransitive verb takes as its subject a noun representing the perceived object (e.g. *kaji-no-oto* "the sound of their oars") and as its complement the experiencer.

[4] Since auditory comprehension usage essentially represents the "inference" of the perceiver, it will henceforth be referred to as "inference usage."

Table 1. Usages of the Verb *Kikoyu* (*The Great Dictionary of Archaic Japanese*, vol. 2)[5]

I. To perceive something by hearing
   (a) Sound reaches the ears. This usage primarily focuses on sound.
      e.g.) Shika-no-ura-ni izari-suru ama ake-kure ba
      at Shiga Bay fish fisher-NOM dawn breaks when-CONJ
      urami kogu-rashi kaji-no-oto *kikoyu*
      shore-ACC row oars-GEN-sound-NOM hear
      (The fishermen at Shiga Bay row along the shore as dawn breaks. I hear the sound of their oars.)
      (*Man'yōshū*, Volume 15, Poem 3664)
   (b) A rumor spreads. Something to talk about. This usage primarily focuses on the content.
      e.g.) Naniwatsu-ni mifune hatenu to *kikoe*-ko ba
      at Naniwa Port ship-NOM has arrived that-COMP hear when-CONJ
      (When I hear that a ship has arrived at Naniwa Port, […])
      (*Man'yōshū*, Volume 5, Poem 896)
   (c) A reputation. Specific content about a particular subject, which is widely discussed.
      e.g.) […] *kikoyu*-ru ōjikara nari-kere ba warawa-o
      renowned great strength was because-CONJ boy-ACC
      tot-te osae-te […]
      caught-CONJ subdued-CONJ
      ([He] was renowned for his great strength, so he subdued the boy and took his head […])
      (*Heike Monogatari*, Volume 4)

II. To understand the content of what is perceived through hearing
   (a) It seems to be that way. It can be interpreted in that manner.
      e.g.) Sono-hito-no ichijō ko to-mo *kikoe*-nu
      the person-POSS certainly child that-COMP seems-NEG
      hito ari-keri
      person-NOM there was
      (There was a person who certainly did not seem to be the person's biological child.)
      (*Uji Shūi Monogatari*, Volume 5, Tale 8)
   (b) To understand what is being said. To comprehend the logic of what is being said.
      e.g.) […] *kikoe*-nu koto-domo ī-tsutsu yoromeki-taru […]
      […] understand-NEG things-ACC is babbling is staggering
      ([A drunken old priest] is babbling nonsensical things and staggering around […])
      (*Tsurezuregusa*, Section 175)

[5] The descriptions of usages and example sentences in Table 1 are derived from *the Great Dictionary of Archaic Japanese*, while their English translations are provided by the author of this paper.

(c) To be able to approve of the content of what is said. To be convinced. Sound reasoning. - Usage from the early modern period, frequent negative forms.

e.g.) Koitsu kikoe-ta. Togabito-da-na
this guy-TOP understood criminal-COP-SFP
(Ah, I see. This guy is a criminal.)

(*Hizakurige*, Volume 3, Part 1)

2.2 Cognitive Relationship between Perception and Understanding

2.2.1 Cognitive Affinity between Perception and Fictivity

According to Yoshitake (2024), inference usage is closely related to involuntary auditory usage. In fact, the relationship between perception and understanding has been extensively discussed by Sweetser (1990: 23-48) through numerous linguistic examples. This relationship can be regarded as a metonymy in which a temporal sequence is recognized between perception and inference, and can also be explained using the cognitive grammar theory of *simulation* proposed by Langacker (2008: 535-539)[6].

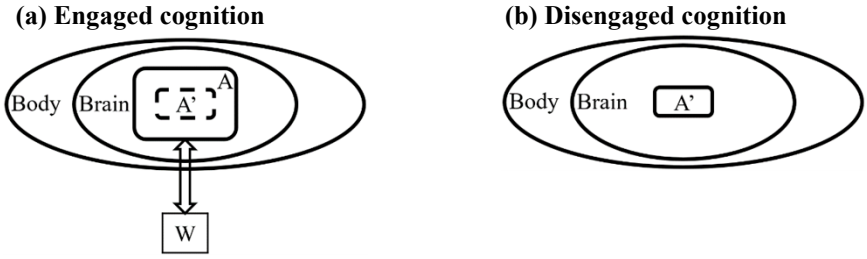

Figure 1. Two Types of Simulation (Langacker, 2008: 535)[7]

According to Langacker (2008: 535-536), the concept of simulation distinguishes between engaged cognition and disengaged cognition. In a state of engaged cognition, the conceptualizer (A) maintains a direct connection with the external world (W) through acts of simulation (A'). Conversely, in a state of disengaged cognition, the focus shifts to the conceptualizer's internal mental activity, which is disconnected from the external world. Building on this theory, Yoshitake (2024: 122) argues that auditory comprehension expressed by verbs of involuntary audition can be characterized by the concepts of engaged cognition and disengaged cognition. Audition, which necessarily involves contact with the external world (e.g. "I heard a scream"), would correspond to engaged cognition, while

[6] Studies addressing the linguistic relationship between audition and understanding include Soga (2010), which analyzes auditory comprehension in the modern French verb *entendre*, and Lacassain-Lagoin (2015), which examines auditory comprehension in the English verb *hear* and the French verb *entendre*.

[7] A' is a simulation of A. W refers to the external world of the conceptualizer.

comprehension, which is more oriented toward the internal world of the conceptualizer, would correspond to disengaged cognition.

Indeed, as seen in examples under II-a in Table 1, the situations described by the verb *kikoyu* are composed of both the recognition of the fact that "a person is present" (engaged cognition) and the interpretation that "the person does not seem to be their biological child" (disengaged cognition). Langacker (2008: 536) explicitly explains, "Simulation is always attenuated relative to engaged experience. Because it is not driven by immediate perceptual input, or harnessed to actual motor activity, it lacks the intensity or vividness of such experience." Inference usage of involuntary auditory verbs tends to co-occur with the auxiliary verb *yōni*, which conveys similative (Yoshitake, 2024). Moreover, as Kawamura (2012: 317-318) observes, sentences with the verb *kikoyu* as the predicate frequently include expressions of perceptual recognition—represented through continuative forms of predicates or quotative clauses (e.g. *to* と)—indicating both the presence of the perceived object and the invocation of a particular recognition.

2.2.2 Deepening of Comprehension Usage through Synecdoche

In general, semantic change occurs gradually, with usages evolving through some form of relational connection. Although general comprehension usage (II-b) and conviction usage (II-c) are markedly distanced from the original meaning of audition, the presence of inference usage (II-a), which maintains a connection to auditory usage, provides a coherent trajectory for the semantic evolution. Between inference usage, general comprehension usage, and conviction usage, there is a discernible gradation in the degree of "comprehension" expressed. This gradation parallels the linguistic phenomenon of synecdoche. Synecdoche refers to a linguistic phenomenon in which "a form with a more general meaning is used to express a more specific meaning, or conversely, a form with a more specific meaning is used to express a more general meaning" (Momiyama, 1997: 31)[8]. Synecdoche includes both the transfer of meaning from a specific category to a broader one (species-to-genus) and from a broader category to a more specific one (genus-to-species) (Momiyama, 2021: 117-125). In the case of the verb *kikoyu*, between the meaning of inference and the meaning of general comprehension, the former can be regarded as the species and the latter as the genus. Conversely, between the meaning of general comprehension and that of conviction, the latter represents a more advanced or deeper level of "comprehension" within the general category, thus making the former the genus and the latter the species. In other words, each usage can be said to be based on an inclusion relationship that reflects varying degrees of "comprehension." In cognitive linguistics, this phenomenon can

[8] This passage is translated by the present author.

be explained through the theoretical framework of super-schematization (Kuroda, 2007).

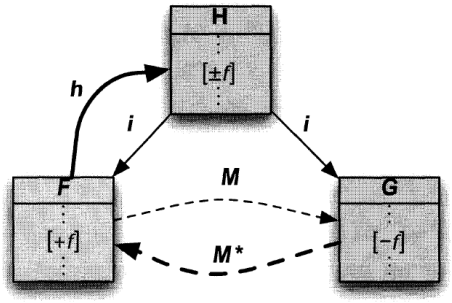

Figure 2. Metaphorical Mapping via a Super-Schema Model (Kuroda, 2007: 227)

In this figure, the original meaning (F) undergoes super-schematization (h) and instantiation (i), allowing a metaphorical mapping (M) from the original meaning (F) to the metaphorical meaning (G) (Kuroda, 2007: 226-227).

Applying this theory to the semantic evolution of the comprehension usages of the verb *kikoyu*, it can be hypothesized that the super-schematization of inference usage led to the emergence of general comprehension usage. Subsequently, the instantiation of general comprehension usage gave rise to conviction usage, which expresses an even deeper level of "comprehension."

2.3 Research Objectives

Based on the aforementioned prior studies, the following hypotheses can be proposed regarding the mechanism by which the verb *kikoyu*, originally denoting "involuntary auditory perception," acquired comprehension usages: first, events perceived through "audition" are hypothesized to generate inference usage via the cognitive process known as simulation. Second, the "inference" undergoes super-schematization, leading to the emergence of general comprehension usage. Third, instantiation of general comprehension usage gives rise to conviction usage.

As Hashimoto et al. (2012: 22) point out, "[…] the cognitive biases of language users, the recognition of similarity and contingency, make unidirectionality possible". In the case of the present study, a synecdochic cognitive bias may underlie the development of the deeper sense of "understanding". In summary, if cognitive mechanisms such as simulation, super-schematization, and instantiation are indeed the driving forces behind the semantic changes of the verb *kikoyu*, then the order of semantic change may be diachronically determined in accordance with the structure of the cognitive system.

3. Corpus and Methods

3.1 Corpus

This study utilized the *Corpus of Historical Japanese* developed by the National Institute for Japanese Language and Linguistics as the primary data source. The analysis targeted the period from 759 to 1947, during which the verb *kikoyu* (lexeme: *kikoeru*) is recorded. Usage frequencies of the verb *kikoyu* were calculated for up to 500 instances per century. In cases where more than 500 examples were recorded within a given century, the data was randomized to avoid philological imbalances during analysis. The actual number of examples analyzed were as follows: 30 from the 8th century, 6 from the 9th century, 62 from the 12th century, 81 from the 14th century, 145 from the 16th century, 65 from the 17th century, and 151 from the 18th century. For the remaining centuries – the 10th, 11th, 13th, 19th, and 20th – 500 examples were analyzed for each.

3.2 Classification of Usages

Each example was categorized into one of the following usages: auditory usage, hearsay usage, reputational usage, inference usage, general comprehension usage, or conviction usage. While the tagging of usages relies on contextual judgment, strict criteria grounded in syntactic structure were applied as follows: instances where a sound or its metonymy functions as the subject were classified as auditory usage; those co-occurring with the quotative particle *to* と were categorized as hearsay usage; and those taking a [attributive + noun relative to reputation] construction were identified as reputational usage. Regarding comprehension usages, examples co-occurring with either the quotative particle *to* or auxiliary verbs expressing similative (*yōni* ように or *mitaini* みたいに) were classified as inference usage[9]. Instances where the subject explicitly indicated the object of "understanding" were categorized as general comprehension usage, whereas instances where the object of "understanding" was not explicitly marked as the subject were categorized as conviction usage.

4. Results

4.1 Quantitative Analysis

The following data represent the number of occurrences of each usage in the verb *kikoyu* based on the classification criteria outlined in Section 3.2. I-a corresponds to

[9] The term "similative" as used here refers to the notion that the property or state of a given entity resembles that of another entity (Matsumura, 1987: 315).

auditory usage, I-b to hearsay usage, I-c to reputational usage, II-a to inference usage, II-b to general comprehension usage, and II-c to conviction usage. Additionally, "Others" includes usages not mentioned in Table 1, such as honorific expressions.

Table 2. Occurrences of Usages of the Verb *Kikoyu*

	AP	CP				MeP			EMP			MoP
	8th	9th	10th	11th	12th	13th	14th	16th	17th	18th	19th	20th
I-a.	24	1	59	26	38	61	30	5	12	36	260	388
I-b.	6	1	21	17	9	274	21	122	10	52	88	23
I-c.	0	0	8	0	1	53	1	17	5	8	66	41
II-a.	0	0	9	4	9	16	16	1	2	7	47	48
II-b.	0	0	0	0	0	2	1	0	26	21	17	0
II-c.	0	0	0	0	0	0	0	0	7	20	7	0
Others	0	4	403	453	5	94	12	0	3	7	15	0
Total	30	6	500	500	62	500	81	145	65	151	500	500

Subsequently, Figure 3 below illustrates the proportion of each usage from Table 2 across centuries, expressed as percentages. Percentages have been rounded to the third decimal place.

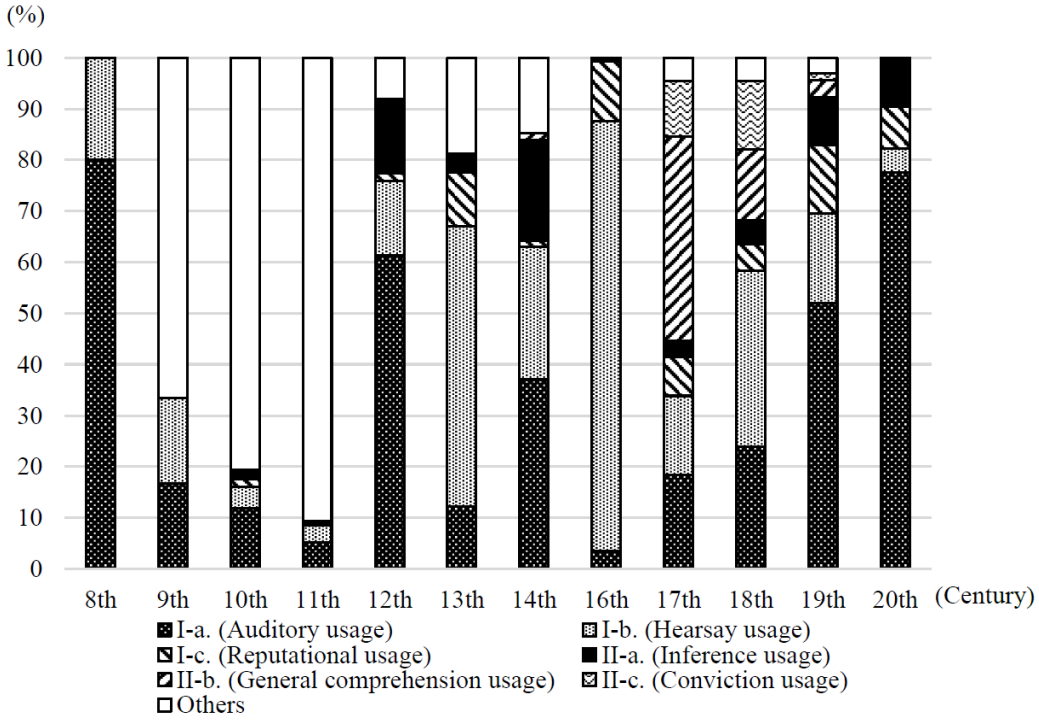

Figure 3. Frequency of Usages of the Verb *Kikoyu*

According to the data, auditory usage and hearsay usage had already appeared by the 8th century. The first occurrence of inference usage, marking the initial emergence of the meaning of comprehension, appeared in the 10th century. Subsequently, general comprehension usage emerged in the 13th century, reaching its peak frequency in the 17th century. On the other hand, conviction usage first appeared in the 17th century, later than general comprehension usage. By the 20th century, only inference usage remained, while general comprehension usage and conviction usage had disappeared[10]. This decline is likely attributable to the replacement of the comprehension usages of *kikoyu* by the verb *wakaru*[11].

The fact that inference usage persisted while other comprehension usages disappeared suggests that inference usage is characterized not only by disengaged cognition but also by engaged cognition. Conversely, the modern verb *wakaru* denotes a type of "comprehension" that is unrelated to perception (disengaged cognition)[12], indicating an equivalence between its comprehension usages and the general comprehension usage and conviction usage of the verb *kikoyu*. This observation indicates that the cognitive process of inference as approximate understanding serves as an intermediary between perception (engaged cognition) and comprehension (disengaged cognition).

4.2 Qualitative Analysis

Individual examples observed in the *Corpus of Historical Japanese* are examined next. First, the auditory usage, which represents the original usage of the verb *kikoyu*, includes examples such as the example (1). Auditory usage is characterized by subjects representing sounds.

(1) […] ajirohito fune yobō koe ochi-kochi kikoyu
fishermen-NOM boats-ACC call voices-NOM here and there hear
([…] the voices of fishermen calling for boats can be heard here and there.)
(Anonymous (759) *Man'yōshū*, Vol. 7, Poem 1135: 10-万葉 0759_00007,17260)

[10] The historical periods of Japanese are categorized as follows (Okimori et al., 2022: 5): pre-Nara period as the Ancient period (AP), Heian period as the Classical period (CP), Kamakura and Muromachi periods as the Medieval period (MeP), Edo period as the Early modern period (EMP), and Meiji period onward as the Modern period (MP). The highest frequencies of general comprehension usage and conviction usage occurred during the Early modern period (Edo period).

[11] While the phenomenon of lexical replacement may appear straightforward, it requires consideration of relationships within the broader lexical system, making explanations complex. As this study focuses on the semantic changes of the involuntary auditory verb *kikoyu*, the reasons for its replacement by the verb *wakaru* will not be discussed here.

[12] Refer to the *Meikyō Japanese Dictionary*.

Second, as an instance of inference usage, which emerged after the 10th century, the following examples were observed. In the example (2), the content of "understanding" is indicated by the quotative particle *to* と, where the conceptualizer, contrasting the earlier absence of sound with the current perception of the rough wind through the pines, arrives at the interpretation that "I must have received some kind of divine protection." In the example (3), the interpretation is expressed through the auxiliary verb *yōni* ように, which indicates a similative. Here, the conceptualizer interprets the perceived sound of the wind on Mt. Mikasa-yama as personified lamentation. Both cases involve a combination of auditory perception (engaged cognition) and interpretation (disengaged cognition).

(2) […] kakaru-oto-no se-nu-wa mono-no-tasuke-ni-koso ari-kere to-made-zo
such a sound-NOM do-NEG-TOP God-POSS-assistance there was that-COMP
kikoyu-ru.
hear
([…] The sound of the wind blowing through the pines was so rough that I thought I must have received some kind of divine protection, as I have never heard such a sound before.)
(Fujiwara no Michitsuna's Mother (974) *Kagerō Nikki*, Vol. 2: 20-蜻蛉 0974_00009,8220)

(3) […] Mikasa-yama-no-arashi-no-oto uramuru yōni-zo kikoe-keru.
Mt. Mikasayama-POSS-wind-POSS-sound-NOM laments as if -AUX heard
([…] I heard the sound of the wind on Mt. Mikasa-yama as if it were lamenting.)
(Anonymous (1250) *Heike Monogatari*, Vol. 5: 30-平家 1250_05014,22570)

Third, examples of general comprehension usage were observed as follows. In these cases, the object of "understanding" is explicitly specified through linguistic expressions (e.g. *koto* 事, *kotowari* 理), implying the involvement of "thought" necessary to achieve understanding.

(4) Yara wagoryo-wa kikoe-nu koto-o iwashi-masu […]
Hey you-TOP understand-NEG things-ACC say
(Hey, you're saying something that doesn't make any sense […])
(Ōkura Yatarō Toramasa (1642) *Toramasa-bon Kyōgenshū*, *Bunga*, *Onirui-konamurui*: 40-虎明 1642_04028,3470)

(5) Oyaji-no-ībun kotowari-ga kikoe-ta
Dad-POSS-argument-TOP reason-NOM understood
(I understood the reason behind my dad's argument.)
(Chikamatsu Monzaemon (1711) *Imamiya no Shinjū*, Vol. 1: 51-近松 1711_18001,34820)

Finally, examples of conviction usage were identified as shown in (6) and (7). These examples differ from the previous ones (4) and (5) in that the object of "understanding" is not explicitly indicated through linguistic expressions. In all cases, the interjection *mumu* ムム, which expresses "conviction", co-occurs, and in

the example (7), the noun *gatten* 合点, which means "agreement" or "comprehension", also appears. This suggests that the verb *kikoyu* in these instances conveys a meaning of conviction, abstracted from specific content, aligning with the meanings of English *I see* and French *Je vois*.

(6) […] hitori-ga unazui-te mumu sore-de kikoe-ta.
a person-NOM nodded-CONJ hmm then-CONJ was convinced
(A person nodded and said, "Hmm, I am convinced.")
(Chikamatsu Monzaemon (1715) *Ikutama Shinjū*, Vol. 2: 51-近松 1715_19002,6610)

(7) Korya nani nasa-ruru. Mumu kikoe-ta. O-tori-mochi-no-o-sake-ga
hey what do hmm understood served sake-NOM
sugi-ta-ka. Mumu gatten gatten
exceeded-SFP hmm conviction conviction
(Hey, what are you doing? Hmm, I see. Perhaps the sake provided by the mediator was too much. Hmm, understood, understood.)
(Chikamatsu Monzaemon (1722) *Shinjū Yoi Kōshin*, Vol. 1: 51-近松 1722_21001,56040)

5. Theoretical Discussion

The Premodern Japanese verb *kikoyu* exhibits polysemy, as it encompasses three types of comprehension usage in addition to its auditory-related usages. Regarding the nature of polysemy, Koyanagi (2018: 204-205) asserts: "Generally, a word always involves variations in its usage. When these variations are minor, they remain within the scope of a single meaning. However, when the variations become more significant, they are perceived as distinct meanings. As the word becomes usable in new senses in addition to its previous meanings, the meaning becomes layered, leading to the development of polysemy" [13]. Additionally, Koyanagi (2018: 25) proposes three stages of language change, as outlined below:

Table 3. Stages of Language Change (Koyanagi, 2018: 25)[14]

a.	Invention:	The creation of a new linguistic expression, produced by an individual on a single occasion.
b.	Trial:	The spread of the new linguistic expression, sporadically used by multiple people.
c.	Adoption:	The acceptance of the new linguistic expression, gradually used by people within a specific group.

In the case of the verb *kikoyu*, inference usage was invented in the 10th century through a cognitive process known as simulation, applied to events perceived via auditory mechanisms. Despite the verb traditionally taking subjects that denote sounds, the emergence of auxiliary verbs such as *yōni* ように and *mitaini* みたいに,

[13] This passage is translated by the present author.
[14] This passage is translated by the present author.

which indicate interpretation of the conceptualizer, introduced usage differences, leading to the first instance of polysemy.

Subsequently, the meaning of inference underwent super-schematization, resulting in the invention of general comprehension usage in the 13th century. At this stage, subjects explicitly denoting the object of "understanding," particularly terms representing problems that lead to comprehension (e.g. *kotowari* 理, *dōri* 道理), introduced structural differences relative to inference usage, marking the second stage of polysemy.

Finally, instantiation of general comprehension usage led to the invention of conviction usage in the 17th century. This usage differs structurally from general comprehension usage in that it conveys "understanding" without explicitly indicating the object of "understanding." This introduced the third stage of polysemy.

However, language change involves not only positive developments but also negative changes. According to Koyanagi (2018: 231), negative changes can be categorized as follows:

Table 4. Stages of Linguistic Expression Loss (Koyanagi, 2018: 231)[15]

a.	Suppression:	A decline in the frequency of a linguistic expression's usage.
b.	Abandonment:	The complete cessation of a linguistic expression's usage.

For the verb *kikoyu*, while auditory-related usages (Table 1: I-a, I-b, I-c) have been preserved into modern Japanese, comprehension-related usages have largely disappeared, with only inference usage remaining. As discussed in section 4.1, this is likely due to the replacement of the verb *kikoyu*'s comprehension usages by the verb *wakaru*.

Nevertheless, inference usage persisted because it remained connected to auditory usage through engaged cognition, which ties it to the verb's original meaning related to "audition." Conversely, general comprehension usage and conviction usage lacked direct connections to auditory usage, as inference usage intervened synecdochically between these usages and auditory usage. Consequently, only general comprehension usage and conviction usage were ultimately abandoned among the comprehension-related usages.

6. Conclusions

This study has identified three distinct comprehension usages of the Premodern Japanese verb *kikoyu*: inference usage (auditory comprehension usage), general

[15] This passage is translated by the present author.

comprehension usage, and conviction usage. A diachronic analysis has made it possible to explain the mechanisms underlying the development of these usages as follows. First, situations perceived through "audition" are processed via the cognitive mechanism of simulation, resulting in the emergence of the inference usage. Second, the concept of "inference" undergoes super-schematization, leading to the general comprehension usage. Third, this general comprehension usage is instantiated, culminating in the conviction usage.

Two primary issues remain unresolved in this study.

First, the necessity of cognitive processes influencing semantic change requires further discussion. For example, Koyanagi (2018: 17-18) cautions that "the history of language is understood as a relative historical image constructed from the researcher's perspective, retrospectively perceived from the present; the 'true history of language' is unknowable."[16] In the present case, whether cognitive processes such as simulation, super-schematization, and instantiation definitively determine the diachronic order of semantic change is largely contingent on the researcher's perspective.

Second, while this study focused on the comprehension usages of the verb of auditory perception in Japanese *kikoyu*, it has not clarified the reason why Japanese, unlike many other languages (e.g. *I see* in English and *Je vois* in French), employs a verb of auditory perception rather than a verb of visual perception to develop meanings of comprehension. These issues remain subjects for future research.

Abbreviations

ACC:	accusative	COP:	copula	POSS:	possessive
AUX:	auxiliary	GEN:	genetic	SFP:	sentence-final particle
COMP:	complementizer	NEG:	negation	TOP:	topic
CONJ:	conjunction	NOM:	nominative		

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